# Las POSITAS COLLEGE ACADEMIC CATALOG 

 $\star \quad 2012 \cdot 2014$


## ACADEMIC CALENDAR

## FALL 2012 SEMESTER

| August 20 | Regular Full-Term Instruction Begins |
| :--- | :--- |
| August 25 | Instruction Begins - Saturday Classes |
| September 1-3 | Labor Day Weekend - No Saturday Classes |
| September 3* | Holiday - Labor Day (no instruction) |
| November 10 | Saturday Classes meet |
| November 12* | Veterans Day (no instruction) |
| November 21-23* | Thanksgiving Recess (no instruction) |
| November 24 | No Saturday Classes |
| December 8 | Last Day of Saturday Classes |
| December 14 | Last Day of Instruction |
| December 15-21 | Final Examination Period |
| December 15 | Finals (Saturday Classes only) |
| Jec 24-Jan 1 | Winter Recess |
| January 7 | Grades Due |

* Holiday/All Employees

Note: The deadlines listed above refer to regular, full-term classes only. Alternate courses have varying deadlines posted in the lobby of the Admissions and Records Office. You will also find deadlines on "CLASS Web" or ask your instructor.

## SPRING 2013 SEMESTER

| January 21* | Holiday - Martin Luther King, Jr. |
| :--- | :--- |
| January 22 | Instruction Begins |
| January 26 | Instruction Begins (Saturday Classes) |
| February 15-18* | Presidents' Weekend (no instruction) |
| March 30 | Saturday classes meet <br> April 1-6 |
| Spring Break <br> (no instruction, no Saturday classes) |  |
| May 23 | Final (Saturday Classes only) |
| May 24-31 | Final Examination Period |
| Man 27* | Memorial Day <br> (no instruction/no final examinations) |
| June 1 | Commencement |

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## DIRECTORY



Please note: The College is undergoing renovation and construction. Some noted building numbers may have changed. Please check the campus map at http://www.laspositascollege.edu/about/map.php for building updates.


Students First is more than a slogan at Las Positas College - it symbolizes the institution's commitment to students and their success. Our faculty and staff serve nearly 8,500 students that are seeking to transfer to a four-year institution, earn certification in career education, or develop skills that lead to additional educational opportunities. Equally important to the College's commitment are the contributions of LPC students, who drive a vibrant campus culture that promotes equity, engagement, and educational excellence.

Our focus on student success is a direct result of the intentional and deliberate acts undertaken through the collaborative efforts of the campus leadership structure. Administrators, faculty, and staff work together to ensure that learning is productive and programs are successful. Students who attend Las Positas College have a lot to look forward to: highly-trained faculty with a passion for teaching and learning; incredibly experienced staff who demonstrate "Hawk Pride" in all they do; an administrative team that places students at the center of every decision; a student government that focuses on advocacy and organizes activities to enhance the learning experience; and state-of-the-art facilities that foster a creative and supportive academic environment.

Las Positas College puts Students First to ensure that our community is prepared for the challenges of the future. Whether you are a recent high school graduate seeking a transfer degree in biology, a veteran preparing to enter civilian life, or a student committed to serving the public as a police officer, Las Positas College is a place where you will be welcomed and supported.

We hope to see you on campus soon!


KEVIN G. WALTHERS, PH.D.
President

## CHABOT-LAS POSITAS BOARD OF TRUSTEES

The Chabot-Las Positas Board of Trustees governs the Chabot-Las Positas Community College District and is responsible for all policy decisions. The Board meets twice a month.

| Name/Position | Area Represented | Year First Elected |
| :--- | :--- | :---: |
| Isobel F. Dvorsky <br> President | Area 2: San Leandro | 1985 |
| Arnulfo Cedillo, Ed.D. <br> Secretary | Area 3: Union City, <br> South Hayward | 1985 |
| Donald L. "Dobie" Gelles | Area 4: Castro Valley, <br> portions of Oakland | 1998 |
| Hal G. Gin, Ed.D. | Area 6: Hayward, <br> San Lorenzo | 2005 |
| Barbara F. Mertes, Ph.D. | Area 7: Livermore, <br> portions of Pleasanton | 2000 |
| Marshall Mitzman, Ph.D. | Area 1: Hayward | 2008 |
| Carlo Vecchiarelli | Area 5: Pleasanton, <br> Dublin, Sunol | 2004 |

Trustees Emeriti


## ADMINISTRATION

## District

Joel L. Kinnamon, Ed.D.
Chancellor
Lorenzo Legaspi
Vice Chancellor of Business Services
Jeffrey M. Kingston
Vice Chancellor of Facilities Planning and Management

## Las Positas College

Kevin G. Walthers, Ph.D.
President
Janice E. Noble, Ph.D.
Vice President of Academic Services
Diana Z. Rodriguez
Vice President of Student Services
Vacant
Vice President of Administrative Services
Dyan R. Miller
Dean of Academic Services
John Ruys, Ph.D
Interim Dean of Academic Services
Vacant
Dean of Student Services
Sylvia Rodriguez Wodyka
Dean of Enrollment Services
Rajinder Samra
Director of Research and Planning
Ted Kaye, Ph.D.
Chief Executive Officer, LPC Foundation
Vicki Shipman
Project Manager, Career-Technical Education
Corinna Calica
Program Director, Children Center

## Chabot College

Susan Sperling, Ph.D.
President

## Chabot-Las Positas <br> Community College District

The Chabot-Las Positas Community College District has provided quality education to residents of the Bay Area for fifty years. The voters approved the formation of a "junior college district" on January 10, 1961 and the first board of trustees was elected on April 18, 1961.

Las Positas College is one of two separately accredited colleges in the Chabot-Las Positas Community College District. The College is a public institution and principally serves citizens from the communities of Dublin, Livermore, and Pleasanton, and several unincorporated areas including Sunol and north Livermore.

In addition to the traditional and career and technical curriculum offered at the Colleges, the District conducts an active outreach program in contract education to help business, industrial and public organizations develop training programs tailored to meet their needs.

## Governance Structure

The California Community Colleges operate under the governance of the State Chancellor, the State Board of Governors appointed by the Governor, and local districts with their own locally elected governing boards. The California Community College's System Office and Board of Governors oversee the distribution of funds apportioned by the State Legislature for use by the Community Colleges. California's Community Colleges are organized into 72 community college districts. Each college within a district has a president or chancellor/ superintendent, and each district has its own elected board of trustees who apportions funds and governs the colleges within its district.

## Mission of the California Community Colleges

By law, the California Community Colleges shall admit any person who is a high school graduate or equivalent thereof, or who is eighteen years of age or older, and who can benefit from the instruction offered.

Primary missions of the colleges are to offer academic and career and technical education at the lower division level. Another primary mission is to advance California's economic growth and global competitiveness through education, training, and services that contribute to continuous workforce improvement. Essential and important functions of the colleges include: basic skills instruction and in conjunction with the school districts, instruction in English as a Second Language, adult noncredit instruction, and support services which help students succeed at the postsecondary level. Community Education is designated as an authorized function.

The Board of Governors shall provide leadership and direction in the continuing development of the California Community Colleges as an integral and effective element in the structure of public higher education in the state.

## Las Positas College

Located in the East Bay region of Northern California, Las Positas College is situated amid one of the state's fastest growing areas for business, science, and technology. Gently rolling hills and picturesque vineyards provide the scenic background for the college's 147-acre campus.

Las Positas College currently enrolls approximately 8,500 students and offers curriculum for those seeking transfer to a four-year college or university, career preparation, or basic skills education. The College provides university transfer classes, retraining classes for those in need of employment or career advancement, a first-time educational
opportunity for many adults, and career and technical training for those entering the technical and para- professional work force. Las Positas College excels in helping students transfer to the University of California system, the California State University system, and other four-year institutions.

Students who come to the College can choose any of 26 Occupational Associate Degrees, 17 Transfer Associate Degrees, and 37 Certificate Programs. In addition, the College offers community education courses geared toward personal development and cultural enrichment.

Academic rigor is maintained in a friendly, welcoming atmosphere. Las Positas College faculty and staff are distinguished by their energy, creativity, and commitment to making a difference in the lives of the students they serve. Las Positas College is a learning-centered institution focused on excellence and student success, and is fully committed to supporting all Tri-Valley residents in their quest for education and advancement.

The campus is accessible from BART and Interstate 580. Students can take buses from the Pleasanton-Dublin BART station and from many locations in Livermore and Pleasanton. The College is proud of its exceptional safety record - making it one of the safest colleges in the Bay Area - and its commitment to sustainability, including LEED facilities, recycling and reduced-usage practices, and photovoltaic (solar) arrays that generate two megawatts of energy.

## History of the College

Las Positas College began as an extension center of Chabot College in 1963, offering 24 classes and enrolling 810 students at Livermore High School and two other sites. By 1965, the program had expanded and moved to Granada High School in Livermore. It subsequently grew to include Amador and Dublin High Schools as well. The District purchased the Livermore site that same year, intending to develop a comprehensive community college. On March 31, 1975, "Valley Campus" opened as the Livermore Education Center of Chabot College.

Las Positas College has since developed into a fully accredited comprehensive institution. In 1988, the College was designated by the Board of Governors to be an independent college. Las Positas College received full accreditation on January 7,1991 from the Accrediting Commission for Community and Junior Colleges.

## Institutional Planning

In 2011-12, Las Positas College entered its second year of implementing Strategic Plan: 2015 - a planning document that was developed by faculty, staff, administrators, students, and community members. This strategic planning process centered on the College's ten strategic goals; set the foundation for future directions, including the development and assessment of programs, services, and facilities; and outlined data indicators to demonstrate the institution's effectiveness in achieving student success.

That year also marked the last round of new construction projects originating from the 2005 Facilities Modernization Program and Measure B Bond passed by local voters. This campus expansion included state-of-the-art facilities to enhance teaching and learning: a Multi-Disciplinary Building, providing more than 36,000-squarefeet of classrooms, lecture hall, and lab space; the Mertes Center for the Arts - with a 500-seat theater, 1,500-seat amphitheater, and classroom space; a Child Development Center, featuring ECD learning labs and childcare services; a Physical Education Complex, including a gymnasium, instructional areas, Aquatics Center, multi-use field, and Track \& Field facility; an expansion of the Science Building, with "wet" and "dry" labs and classrooms; a new Student Services \& Administration

Building; and two new parking lots, bringing nearly 600 additional parking spaces to campus.

Las Positas College continues its development and assessment efforts by working to further integrate processes for planning and resource allocation. To measure its performance and evaluate its effectiveness in achieving its Mission, the College relies upon participation from all constituency groups and data on student, program, and institutional success.

## Mission Statement

Las Positas College is an inclusive, learning-centered institution providing educational opportunities that meet the academic, intellectual, career-technical, creative, and personal development goals of its diverse students. Students develop the knowledge, skills, values, and abilities to become engaged and contributing members of the community.

## Vision Statement

Las Positas College meets our students and community where they are and creates experiences for them that build their capacity, speak to their potential, and transform their lives.

## Values Statement

Las Positas College thrives as a teaching and learning community committed to integrity and excellence. To nourish this environment and the communities served, we:

- promote and celebrate lifelong learning;
- anticipate and meet the needs of the ever-changing workplace;
- demonstrate social and environmental responsibility;
- promote tolerance and mutual respect in a diverse community;
- foster a climate of discovery and creativity; and
- hold firm to the belief that each of us makes an astonishing difference.


## Institutional Strategic Goals

1. PProvide excellence in teaching, student learning, services to students, and scholarship by providingstate of the art learning facilities, equipment, supplies and resources, and staffing. (Teaching and Learning)
2. Increase recognition of Las Positas College as a premier institution of innovative higher education that prepares talented, competent, and engaged members of the community. (Institutional Advancement)
3. Ensure the highest level of service to students and the community through continuous and purposeful evaluation of programs and services that situates student learning, community responsiveness, and employee engagement as the center of all we do. (Accountability)
4. Offer cutting edge educational opportunities designed to accelerate the economic development of the Tri-Valley region. (Economic Development)
5. Provide excellence in the stewardship of the community's investment in Las Positas College and expand the institution's capacity to apply resources to meet the needs of students, staff, and faculty through strategic assessment and resource allocation. (Resource Development and Allocation)
6. Commit to excellence in teaching, student learning, and scholarship by expanding professional development for all employees and nurturing the intellectualism within the campus culture. (Academic and Professional Excellence)
7. Serve a diverse college community by maintaining and expanding an environment of accessibility, equality, and social justice. (Diversity and Pluralism)
8. Craft a culture of collective responsibility through an enhancement of College processes and systems, reinforcing internal communication, integrating internal planning processes that promote coordination and accountability, and strengthening a sense of community and collaboration internally and within the District. (Communication and Infrastructure)
9. Serve as a catalyst for enhanced community life through outreach, partnerships, services, and significant contributions to quality arts, cultural, wellness and vitality experiences and activities in the Tri- Valley. (Community Life)
10. Engage in sustainable stewardship and community leadership as an institution through our use of products and technology, our practices and curriculum, our policies, and our philosophy as represented through institutional culture and leadership. (Sustainability)

## Statement of the Objectives of the General Education Program

General education programs are accepted as a significant part of the program of studies in American colleges and universities. The term general education refers to a program of studies that introduces the student to areas of study that mature the mind, enrich family, and widen social and ethnic relationships. They develop skills and aptitudes that can aid the student in furthering personal and social usefulness, and in living in the environment as thinking and contributing citizens.

It is a program, furthermore, that activates the imagination, deepens the perspective of life, and gives life direction and purpose. The general education program is eminently well-suited to a democracy where every person is eligible to enjoy the cultural riches of the world and to become a useful citizen in dealing with local, national and world economics, and cultural, social and political problems.

## Las Positas College General Education Philosophy

A philosophy of general education addresses both a present reality and a future hope. The reality encompasses the practical elements a well-educated student should grasp early in education. The future hope will serve as a foundation to achieve insights into ethical problems and engage in lifelong learning, the hallmarks of educational excellence.

## GENERAL EDUCATION:

- Provides skills and proficiencies needed to succeed in an academic environment as well as in our continually changing world.
- Exposes students to core knowledge, concepts, and methodologies of the Arts, Humanities, and the Natural and Social Sciences.
- Develops students' appreciation for the cultures and history of the United States and prepares them to participate in our democracy.
- Familiarizes students with a diversity of viewpoints by exposing them to the history and cultures of other countries.
- Advances students' critical thinking skills, enabling them to access, examine, and assess issues and information.
- Hones students' reading, speaking, and writing skills, enabling them to communicate clearly, effectively, and creatively.
- Promotes the development of students' quantitative competencies, to strengthen analytical thinking, and gain the ability to evaluate and access informational technology.
- Increases students' understanding of the physical and biological sciences, the scientific method, and the reliability and limitations of scientific knowledge.
- Deepens students' awareness of wellness and teaches the methods for and importance of maintaining physical and mental health.
- Encourages students to cultivate new interests and develop their abilities to search for answers, recognizing that an educated person understands how much more there is to learn.


## Accreditation

Las Positas College is a public, two-year community college accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges ( 10 Commercial Boulevard, Suite 204, Novato, CA 94949, 415.506.0234), an institutional accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and the U.S. Department of Education. The University of California, California State University, and private universities and colleges accept appropriate courses for transfer.

The College is approved for the training of veterans and for enrolling non-immigrant students.

## Statement of Compliance

Las Positas College maintains an atmosphere that is welcoming to all students and conducive to their academic and personal success. The College provides an environment free of all forms of harassment, in which all students and employees are treated with dignity and respect.

Las Positas College does not discriminate on the basis of race, color, national origin, gender, physical ability, religious belief or age in any of its policies, procedures or practices. Las Positas College is in full compliance with:

- Title VI of the Civil Rights Act (1964) - pertaining to race, color and national origin;
- Title VII of the Civil Rights Act (1964) - pertaining to religion and gender;
- Title IX of the Educational Amendments (1972) - pertaining to gender;
- Sections 503 and 504 of the Rehabilitation Act (1973) - pertaining to disability;
- Age Discrimination in Employment Act (1974) - pertaining to age; and
- Americans with Disabilities Act (1990) - pertaining to disability.
- Limited English skills are not a barrier to programs and services of the College.

No person shall be subjected to sexual overtures or conduct-verbal, visual or physical-which is intimidating, hostile, offensive or unwelcome. Such conduct by employees or students is unacceptable and will not be tolerated by the College.

To inquire about the application of Non-Discrimination Policies contact:
Sylvia Rodriguez
Dean of Enrollment Services
925.424.1542 or email: srodriguez@laspositascollege.edu

To inquire about the application of Sexual Harassment policies contact:
James Andrews
CLPCCD Manager, Employment, Diversity \& Employee Relations 925.485.5513 or email: jandrews@clpccd.org

To inquire about the application of Disability Issues and Student Concerns and Grievances contact:
Diana Rodriguez
Vice President of Student Services
925.424.1405 or email: drodriguez@laspositascollege.edu

Inquiries may also be addressed to the:
United States Department of Education Office of Civil Rights
San Francisco Office, Old Federal Building
50 United Nations Plaza, Room 239
San Francisco, CA 94102-4912,
Tel: 415.556.4275/Fax: 415.437.7783.

## Changes in Rules and Policies

Although every effort has been made to assure the accuracy of the information in this Catalog, students and others who use this Catalog should note that laws, rules, and policies change from time to time and that these changes may alter the information contained in this publication. Changes may come in the form of statutes enacted by the Legislature, rules and policies adopted by the Board of Trustees of the Chabot-Las Positas College District, or by the Chancellor or designee of the institution.

## Internet Access

Online access is available via the Las Positas College website at: www.laspositascollege.edu

The Student Services Administration Building is estimated to open in Spring 2013. Program locations will change from what is noted in this catalog. Please visit the campus website for location updates.

## ADMISSION

## Eligibility for Admission

Any person who is a high school graduate or equivalent thereof, or who is eighteen years of age or older and who can benefit from the instruction offered, is eligible to apply for admission to Las Positas College.

## Ability to Benefit from Instruction

Under the provisions of the California State Education Code and Governing Board Policy of this District, a student's ability to benefit from the instruction offered shall be determined by evidence of the individual's:

- Ability to meet the demands of college instruction at Las Positas College;
- Ability to master, and proceed beyond, the minimum basic skill levels required for success in college education;
- Ability to show substantial progress in cognitive and affective learning in college courses; and
- Ability to show progress toward independent learning.

By this rule, the College shall determine whether a person is or is not capable of benefiting from college instruction. The determination of ability to benefit is a matter of composite professional judgment based upon available evidence. Additional information may be obtained from the Office of the Dean of Student Services, Building 700.

## Admission Procedures Application

An applicant may apply for admission to the College by one of the following methods:

- Completing an application online at www.laspositascollege.edu
- Submitting a completed application at the Office of Admissions and Records, Building 700;
- Mailing a completed application to Las Positas College,

Office of Admissions and Records,
3000 Campus Hill Drive
Livermore, CA 94551-7623.

It is only necessary to submit one application per academic year. An academic year is summer through spring.

Official transcripts of previous academic work at other institutions are required to assist students in reaching their educational objectives at Las Positas College. Transcripts are also required for students who are candidates for special admissions programs and/or services such as financial aid and scholarships, veteran's benefits, athletics, concurrent enrollment, and international student education.

## Admission with Advanced Standing

Credits earned at other accredited colleges or universities may be applied towards an AA or AS degree from Las Positas College upon receipt of official transcripts. Accreditation must have been listed in the Accredited Institutions of Higher Education manual. Credit may also be allowed for college-level United States Air Force Institute courses and for formal courses taken at military service schools if such credit is recommended in the American Council on Education Guide.

## Concurrent Enrollment-Educational Opportunities for High School Students

Las Positas College provides the opportunity for high school students to enroll in college-level courses. Students who desire to participate in concurrent enrollment must be recommended by their high school principal and have written parental permission. There are course restrictions for high school students. Information on the Concurrent Enrollment Policy is available at the student's high school, and the Office of Admission and Records, Building 700, or online at www. laspositascollege.edu/admissions/high_school.php.

The latest program information and deadlines for application and recommendation materials are available online at www. laspositascollege.edu, at the local high schools, and at the Office of Admissions and Records, Building 700, or online at www. laspositascollege.edu/admissions/high_school.php. Students must complete the required enrollment materials each semester.

## International Student Admission

Las Positas College is authorized under Federal Law to enroll nonimmigrant alien students. International students (F-1 Visa) seeking admission to Las Positas College must first obtain an international student application packet from the International Student Program Office. The completed documents may then be mailed or faxed to the International Student Office. The application packet contains documents which upon completion:

- Provide evidence of having completed the equivalent of a United States high school education;
- Proof of English Language Proficiency (TOEFL with a minimum score of 45 iBT or 133 CBT or 450 PBT or the IELTS test with a minimum level 4 or the STEP Eiken Test with a minimum grade 2A)
- Students may be conditionally admitted into the English as a Second Language program without proof of English Language Proficiency. Conditionally admitted students will be required to take the English as a Second Language placement test upon arrival at the College.
- Show means of adequate financial support and medical care;
- Provide evidence, (by means of a physical examination) certifying freedom from active tuberculosis;
- Show adequate health insurance coverage.

The number of international students admitted is contingent upon the College's ability to provide services as required. International students will be accepted for admission to Las Positas College at both the fall and spring semester of each academic year. Contact the International Student Program at 925.424.1540 for more information.For information on international student fees, refer to Catalog page 14, "Fees and Refunds," or consult the current Class Schedule.

## SEVIS - Electronic reporting system

SEVIS is a government database program, implemented on January 31, 2003, by the Student and Exchange Visitor Program (SEVP). The SEVIS program is a means by which the formerly part of the U.S. Immigration and Customs Enforcement Branch of the U.S. Department of Homeland Security can track certain non-immigrants such as $\mathrm{F}-1$ or $\mathrm{M}-1$ students based on SEVP data provided by colleges and universities. Las Positas College is a DHS certified institution and as such must provide data on $\mathrm{F}-1$ or $\mathrm{M}-1$ students and report any subsequent changes in status each semester to ensure the students full compliance with DHS and College regulations.

## Residency Requirements for Admission

In determining tuition/enrollment fees, students fall under the following two categories:
I. Residents

Those who have legally resided in California for at least one year and a day prior to the first day of a new semester or session. State law requires that students give evidence of physical presence in California for one year and their intent to make California their home state for other than a temporary period. Non-citizens who meet residency requirements must provide documentation from the Bureau of Citizenship and Immigration Services (BCIS).

## II. Non-residents (out-of-state and international students)

Those who do not meet the California residency requirements as previously outlined. Refer to Catalog, page 14, "Fees and Refunds."

California Nonresident Tuition Exemption may be granted to certain non-resident students who meet the exemption requirements set forth in Assembly Bill 540. Contact the Office of Admissions and Records at 925.424 .1500 for further information. All questions concerning residence status should be referred to the Office of Admissions and Records.

## Transcripts from Other Colleges

Students enrolled at Las Positas College who desire academic credit for courses taken at other accredited colleges/universities must submit official transcripts of that work to the Office of Admissions and Records. It is the student's responsibility to initiate a request to each institution asking that an official transcript of his/her work be sent directly to the Office of Admissions and Records, Las Positas College.

To be credited by Las Positas College, the course work must meet the following criteria

- The course(s) must have been taken at an accredited college/ university;
- The course(s) must be lower division;
- The course(s) must have been completed with a grade of "D" or higher. All transferred grades (including "F"s) will be used in the calculation of units attempted, units completed, and the grade point average;
- The content of the course(s) must be determined to be equivalent to the current Las Positas College course standards. The initial evaluation of course credit is done by the Records Evaluator under the supervision of the Dean of Enrollment Services, Registrar.
- The final responsibility for determining course equivalency is the discipline faculty


## Advanced Placement Program College Entrance Examination Board (C.E.E.B.)

Las Positas College grants credit for successful completion of the Advanced Placement Program of the College Entrance Examination Board (C.E.E.B.). For further information regarding Advanced Placement policies and procedure, see Catalog page 32-34.

## Concurrent Enrollment with University of California, Berkeley

Students who have completed 20 transferable units at Las Positas College or Chabot College with a 2.4 cumulative GPA may be eligible to cross-register with University of California, Berkeley while completing coursework at Las Positas College. Students must attend full-time and may enroll in one lower-division course (numbered 1-99 at UC Berkeley). Additional requirements apply. For further information contact the Career/Transfer/ Employment Center, Building 900 or the Counseling Office, Building 700.

## Cross Registration with California State University, East Bay

Students who have completed 20 transferable units at Las Positas College or Chabot College with a 2.0 cumulative GPA may be eligible to cross-register with California State University, East Bay while completing coursework at Las Positas College. Students who elect to "cross-register" may enroll in courses at CSU East Bay which are not offered at any time by Las Positas College (including upper division courses). Students must be enrolled in a minimum of 6 units at Las Positas College and 12 units between the two campuses. For further information, contact the Career/Transfer/ Employment Center, Building 900 or the Counseling Office, Building 700.

## Readmission from Dismissed Status.

Students on dismissed status from Las Positas College must submit a "Petition for Readmission from Dismissed Status" form. In order to enroll in classes, the Dean of Student Services and Dean of Enrollment Services or designee must approve readmission. Petition forms are available at the Counseling Center, Building 700.

## MATRICULATION <br> Matriculation Process

Matriculation is a partnership between the student and the ChabotLas Positas Community College District for the purpose of aiding students in obtaining their educational goals. This partnership identifies the responsibilities of both the College and the student and describes how to reach those goals through the established programs, policies, and requirements currently in place

The Chabot-Las Positas Community College District agrees to provide "A Plan of Success" to each student which includes: an admissions process; an orientation to the College's instructional programs, support services, and procedures; an assessment of basic educational skills and career goals; counseling/advising for course selection and for developing an individual educational plan; quality instruction; continuous follow-up on progress with referral to support services when needed; and institutional research and evaluation that monitors the effectiveness of all services provided.

The student agrees to express a broad educational intent upon admission and to declare a specific objective within a reasonable period of enrollment; attend classes and complete assigned work; confer with counselors/advisors to discuss choices; seek support services as needed to assist in completing course work; and maintain progress toward an educational goal according to standards set by the Chabot-Las Positas Community College District.

## Exemptions

Students who enroll in credit courses at the ChabotLas Positas Community College District may be exempted from the matriculation components as listed below:

## I. Orientation

A. Non-matriculated students;
B. Students who have earned a previous college degree;
C. Students enrolling in only one performance course (i.e., acting, drawing) or activity course (i.e., physical education);
D. Returning students who have attended a Las Positas College orientation session within the last two years.

## II. Assessment

A. Non-matriculated students are exempt with the exception of those students who plan to register in an English, mathematics, ESL, and/or chemistry course.
B. Matriculated students exempt from the assessment requirements include:

- Students who have earned a previous college degree;
- Students currently enrolled at a four-year college or university who are not enrolling in English or mathematics courses;
- Students enrolling in only one performance course (i.e., acting, drawing) or activity course (i.e., physical education);
- Returning students who have completed the Chabot or Las Positas College assessment process within the last two years.
C. English, mathematics, and chemistry assessment testing requirements will be waived for students who have:
- Completed an assessment process at another California Community College (within the past two years) and have assessment results/scores available for review;
- Completed previous college work in mathematics, English, and/ or reading and have provided transcripts or grade reports;
- Been individually assessed and tested through Disabled Students Programs and Services.


## III. Counseling/Program Advisement

A. Non-matriculated students;
B. Students who have earned a previous college degree;
C. Students enrolling in only one performance course (i.e., acting, drawing) or activity course (i.e., physical education);
D. Students who have completed a Student Education Plan (SEP).

Any student who believes $s /$ he is eligible for exemption from any of the Matriculation components may obtain an Exemption Form from the Counseling Center, Building 700. Students who are exempt from one or more of the Matriculation components are encouraged to participate in this process to enhance their success while enrolled at the College. Please note: Exemptions are not a substitute/waiver for meeting course prerequisites. Students must present a transcript to the Counseling Center, Building 700, indicating prerequisites have been met through prior course completion.

Any student who believes $s$ /he has been discriminated against in the Matriculation process (assessment, orientation, counseling advisement) may file a grievance with the Dean of Student Services, Building 700.

## REGISTRATION

## Registration Methods

Students may register for classes using the following methods:

- Via the Internet using CLASS Web or The ZONE at www.laspositascollege.edu.
- In person at the Office of Admissions and Records.
- For detailed information on registration procedures refer to the current Class Schedule.


## Registration Information

## I. New Students

Students who have never attended the Chabot-Las Positas Community College District will need to complete the following steps for registration:
A. Complete and submit an "Application for Admission" online at www.laspositascollege.edu, or in person at the Office of Admissions and Records, Bldg. 700.
B. Complete an online orientation session.
C. Complete the assessment process; Students will be scheduled for a Program Planning session upon completion of assessment
D. Attend a Program Planning session. Counseling services will be provided at each session to assist students with education planning, program planning, and course selection.
E. New students will not receive an individual registration appointment date. Registration date is based on the date of application. Allow two business days for application processing.

## II. Returning Students

Students who have not attended the Chabot-Las Positas Community College District during the past academic year will need to complete the following steps for registration.
A. Complete and submit a new "Application for Admission" online at www.laspositascollege.edu, or in person at the Office of Admissions and Records, Bldg. 700.
B. . Returning students on probation or dismissed status must obtain counselor advisement and approval before proceeding with registration.
C. Returning students in exempt status may not be required to obtain counselor approval prior to registration. Exempt status does not exempt students from prerequisite requirements; see page 13 for exemptions.
D. Returning students will not receive an individual registration appointment date. Registration date is based on the date of application. Allow two business days for application processing.

## III. Continuing Students

Students who have attended the Chabot-Las Positas Community College District during at least one of the two most recent Fall/ Spring semesters are considered continuing students. Registration appointment notices will automatically be mailed to all continuing students prior to the registration period.

Continuing students at Las Positas College will be assigned a registration priority number. Please visit the college website for information related to registration priority criteria.

## Payment Methods

Students have the option of paying fees by (1) credit card at the time of online registration; (2) mail; (3) bringing payment in person to the Office of Admissions and Records, Building 700 ; or (4) FACTS Payment Plan. Students who may be eligible for financial aid and/or an enrollment fee waiver should contact the Financial Aid Office, Building 1320, prior to registration.

## Student Identification Card

All students are required to carry a valid photo identification card with current validation sticker. This card is essential for use of library, computer lab, bookstore and other campus services. Cards may be obtained at the Office of Admissions and Records, Building 700, and should be carried at all times. The first card is free. A replacement fee will be charged for lost or stolen cards.

## Class Schedule

Before the beginning of each semester, a Class Schedule is published indicating courses to be offered-the time, the instructor, and the room assignment. Important instructions and information regarding admissions and registration are included in this publication. The Class Schedule is posted on the Las Positas College website and is available for purchase at the College Bookstore, Building 1300.

## Admissions Electronic Mail (e-mail)

Students and prospective students can contact Admissions to receive answers electronically from Admissions representatives at: LPC-admissions@laspositascollege.edu

## REGISTRATION POLICIES

## Open Enrollment

In accordance with District policy, all classes are open to enrollment and participation by any person who meets the academic prerequisites of the class and who is otherwise eligible for admission to Las Positas College.

## Enrollment Limits

Students are cautioned that some classes and programs may prove to be so popular or so limited by physical facilities and/or availability of qualified instructors that all students who apply cannot be accommodated.

## PREREQUISITES

## Course Prerequisites

Students wanting to enroll in a course with a prerequisite must satisfactorily complete that prerequisite before they are allowed to register. A course has a prerequisite to ensure that a student has the appropriate body of knowledge to successfully take the course. Courses with a co-requisite require that a student either has taken the co-requisite before or is taking it at the same time as the courses.

Usually, a prerequisite is a course from a lower sequence of courses. For example: You may not enroll in Math 55 without first passing Math 65 with a "C" grade or better, or the equivalent. Usually, a co-requisite course is a lab or a course that provides supplemental instruction.

To see which courses have prerequisites and/or co-requisites refer to the individual course offerings in this Catalog or the LPC website at www.laspositascollege.edu.

## Request for Course Substitution or Waiver of Program Requirement

Students who have had substantial prior experience related to the content of a college-level course, and who can present adequate evidence of their competence, may petition to have enrollment in that class waived without college credit for purposes of satisfying
a program requirement. Courses considered for substitution must have been taken at an accredited institution. Petitions for course substitution or waiver of program requirements are available from the Counseling Center, Building 700. Approval of the request by the Dean of Student Services is required prior to completing registration. Approval shall be based on the following criteria:
A. Adequate evidence of competence as supported by transcripts, statements of employers, military or technical school certificates, etc.;
B. Statement from an instructor that the course reflects the appropriate subject matter and fulfills the necessary program requirements, and signature of the Division Dean to validate the course. Students shall be advised that courses waived receive neither unit nor grade credit and that other courses may be needed to satisfy the total number of units required to complete the program of study.

## Classification of Students Based on Unit Load <br> The following classifications have been established based on unit load:

| Full-time student | Registered for 12 or more units |
| :--- | :--- |
| Three-quarter time student | Registered for 9.0 to 11.5 units |
| Half-time student | Registered for 6.0 to 8.5 units |

## Limitation on Unit Load

Eighteen (18) units per semester are considered to be a maximum load for a student. In order to take more than the maximum, an approval form must be obtained from a counselor. The College reserves the right to place unit limit restrictions due to fiscal constraints.

## Course Conflict/Course Overlap

Students may not enroll in two classes that meet during any part of the same hour.

## Waitlist/Adding Classes

If a class has not been officially closed by an instructor, students may continue to register into open classes. If a class is closed (full), students may have the option to place themselves on a waitlist. Students will be prompted during registration if the class has waitlist availability. For detailed Waitlist information please refer to the College website.

During the first week of instruction (Opening Week) the instructor may issue an add authorization number according to the student's waitlist priority. After the waitlist has been exhausted, a student may be added to a class with permission from the instructor according to the student's registration priority number. A student's ADD priority number is determined by the total number of units completed at the Chabot-Las Positas Community College District, followed by a random digit. Returning students will have their priority number activated for the ADD period only. Refer to our website or current class schedule for ADD deadlines and procedures.

## Withdrawing from Classes

Students Students are responsible for officially withdrawing from classes by the deadline date listed in the current Class Schedule. There is no automatic withdrawal process. Failure to follow the proper withdrawal procedures may result in a grade of "F". Students may drop a course by CLASS-Web or The ZONE, or in person at the Office of Admissions and Records, Building 700.

Requests to withdraw from a class that are received by the "NGR" (No- Grade-of-Record) deadline will not appear on a student's academic transcript. If a student withdraws from a course after the "NGR" deadline but on or before the "W" (withdrawal) deadline, a "W" will appear on their transcript. A "W" notation will not affect the student's grade point average; however, excessive " $W$ " notations may affect: (1) progress status, (2) status as a full-time student, (3) eligibility for financial aid and other benefits, (4) athletic eligibility, or (5) ability to repeat a course (based on Title $V$ regulations). Refer to the Class Schedule for important deadline dates.

## Extenuating Circumstance Withdrawal

Class withdrawal after the twelfth week of instruction is permitted only on the grounds of verified extenuating circumstances (accident, illness, or other matters beyond the control of the student). A "W" will be granted only if the petition is approved and the class instructor verifies that the student is maintaining a passing grade of " $D$ " or better (grade " P " in $\mathrm{P} / \mathrm{N}$ courses). Those students whose request for withdrawal is denied may choose to continue current class enrollment. Extenuating Circumstance Petition forms are available at the Office of Admissions and Records, Building 700.

## Military Withdrawal

If a student is called to active military duty after the No-Grade-ofRecord (NGR) period, $s /$ he is entitled to military withdrawal (MW). Servicemen and women should provide copies of their military orders to the Dean of Enrollment Services, Building 700.

## Withdrawing from the College

Students who intend to withdraw from the College must initiate withdrawal procedures for each class in which they are enrolled. Students are held accountable for clearing all obligations with the College including fees, library books, equipment, and lockers. The deadline for withdrawal from classes with a guaranteed symbol " W " is Friday of the twelfth instructional week. Refer to the Class Schedule for deadlines

## Instructor's Withdrawal Option

The instructor may drop students who miss the first meeting of a course. In addition, an instructor may initiate a drop if the student is absent for a total of four (4) consecutive or six (6) cumulative instructional hours and/or two (2) consecutive weeks of instruction.

## Instructor's Withdrawal Option: Distance Education

The instructor may drop students who miss the first meeting of a course. The first meeting of online or hybrid Distance Education courses is the first day of the class as specified in the Class Schedule listing. For these courses, instructor may drop students who do not log into their Blackboard course and/or complete indicated activities by the third day of classes

## Repeating a Course

The College recognizes that the most recent completion of a course should most accurately reflect a student's academic progress. Therefore, students may repeat for credit those courses taken for which grades of $D$, $F$, or NP were received. The most recent grade (A, B, C, D, F, P/NP) received must be calculated into the GPA regardless of whether this grade is lower or higher than the original grade.

A student, by state law, is limited to ONE ATTEMPT to repeat a course for the purpose of raising a substandard grade (D, F, or NP) except as provided in this Catalog for specific courses or in cases of extenuating circumstances.

Certain courses designated by the Office of Academic Services may
be repeated up to a maximum of three times. Students should consult the College Catalog.

When a student has repeated a course and earned a passing grade of
A, B, C, D, or P, he or she may petition the Dean of Enrollment Services to count, for grade point calculation only, the most recently earned grade. The "Petition For Use Of Most Recent Grade in a Repeated Class" is available at the Office of Admissions and Records, building 700. Physical Education activity courses may not be repeated for a higher grade.

Students are advised that both the original and subsequent grade will remain on their transcript and that in transferring to another institution, they may be held responsible for all units attempted.

## Course Repetition: Special Circumstances

Students may not repeat a course in which they received a passing grade of A, B, or C. However, under specific conditions, the Dean of Student Services or designee may permit the repetition of courses for which a grade of " $C$ " or better has been received. These conditions are:

- When the student's previous grade is, at least in part, the result of extenuating circumstances. Extenuating circumstances are verified cases of accident, illness or other circumstances beyond the control of the student;
- When a student should repeat a course because there has been a significant lapse of time since the student previously took the course;
- When it is necessary to meet a legally mandated training requirement as a condition of continued paid or volunteer employment.

California Education Code (Title V, Section 55763) states that grades awarded for courses repeated under these specific conditions shall not be counted in calculating a student's grade point average.

## College Transcripts

Students who desire transcripts of their academic record must submit a written request to the Office of Admissions and Records, Building 700 , indicating the student's name used while attending, SSN or W identification number, and the number of transcripts requested and name and address of the designated recipient. Transcripts are provided only in response to a written request from the student. Official transcripts will be mailed directly to the designated recipient.

Copies of transcripts received from other colleges and universities cannot be forwarded to a third party. Students desiring such transcripts must request them directly from the issuing institution

## Fees are Subject to Change

Enrollment fees are regulated by the State Legislature budget. The college reserves the right to collect enrollment fee increases approved by the State Legislature from all students including those who have paid fees prior to the implementation of new rates.

## California Residents - Enrollment Fee

California residents, except those exempt by law, will be charged an enrollment fee of $\$ 36$ per unit for classes at Las Positas College. Updates to fee information will be made available at www. laspositascollege.edu or by contacting the Office of Admissions and Records, Building 700.

## Nonresident Tuition

Nonresidents of California are required to pay a tuition fee of \$215 per unit in addition to the enrollment fee and other college fees. A California Nonresident Tuition Exemption may be granted to certain non-resident students who meet the exemption requirements set forth in Assembly Bill 540. Contact the Office of Admissions and Records for further information.

## International Student Tuition

The tuition fee for international students, non-immigrant aliens and students on other types of visas is $\$ 215$ per unit in addition to the enrollment fee and other College fees. International students ( $\mathrm{F}-1$ Visa) are required to enroll and maintain a minimum of 12 units per semester.

## Payment of Fees

Enrollment each term is conditional upon full payment of fees/ tuition. If fees are not paid, classes will be dropped according to the "Drop for Non-Payment" deadline dates listed in the Class Schedule and College web site.

## Failure to Pay

College financial obligations may result in the withholding of grades, transcripts, diplomas or registration privileges from any student who has been provided with written notice that he or she has failed to pay a proper financial obligation due to the College. Any item withheld shall be released when the student pays the financial obligation.

## Mailing Fee

An optional fee of $\$ 3.00$ will be assessed each semester to cover the cost of various mailings that students receive throughout the term (registration mailer, grade report, etc.).

## Health Services Fee

Las Positas College provides health services for students through a Student Health Center. In accordance with state community college regulations, all enrolled students will be charged a mandatory Health Service Fee of \$14 per semester (except Summer Session). The only exceptions for this fee are as follows:

- Students taking classes held only on Saturday, at an off-campus site, or exclusively online;
- Students who rely only on prayer for healing in accordance with the teachings of a bona fide religious sect, denomination, or organization may see exemption from the fee and services. To apply for a waiver, students must provide a statement of such reliance from an official of the sect, denomination or organization.

Information on exemptions is available in the Office of Admissions and Records, Building 700.

## Associated Students Activities Fee

An optional fee of $\$ 10.00$ will be charged each semester. College clubs, scholarships, the Student Center, and other student-related services are supported in part by this fee.

## Student Representation Fee

A fee of $\$ 1.00$ will be assessed of all students each semester. This fee is used for any purpose related to representing students' views with governmental bodies.

## Parking

Parking at Las Positas College is by permit only. Parking regulations are enforced from the first day of class. A daily permit can be purchased from dispensers located in the parking lots. A full-term permit may be purchased online via CLASS Web. The fees are as follows:

Car $\$ 30.00$

Motorcycle $\$ 15.00$

Daily permits $\$ 2.00$

Parking fees for summer are different. Refer to the schedule of classes. A reduced term parking fee of $\$ 20.00$ is available for students who receive a Board of Governors Waiver (enrollment fee waiver through Financial Aid).

## Print Fee Card

Use of a College computer lab requires the purchase of a Print Fee Card obtained from the Las Positas College Bookstore or vending machines. Discounted print cards can be purchased in the Bookstore.

## REFUNDS

## Enrollment Fee Refund

Students who officially withdraw from classes during the NGR (No-Grade of Record) period (see Class Schedule for deadlines) shall be entitled to a full refund less a $\$ 10$ processing fee. Students must initiate a request for refund of enrollment fees for classes cancelled by the College. For cancelled classes, the $\$ 10$ processing fee is not charged. The refund policy complies with, and is based on, California law and the Education Code.

A refund will not be issued to students who withdraw from classes after the NGR deadline.

## Non-Resident Tuition Refunds

Refund of tuition by reason of program reductions or withdrawal from the College will be made in accordance with the schedule indicated below.

Withdrawal prior to the first day of instruction in a regular semester, term or session: 90\% Refund

Withdrawal during the first two weeks of instruction for a regular semester, term or session: 75\% Refund

Withdrawal after second week of instruction for a regular semester, term or session: No Refund

For further information concerning tuition charges and refunds, consult the current Class Schedule

Tax Benefits for Education
HOPE Scholarship and Lifetime Learning Credits
Students will receive from the Chabot-Las Positas Community College District a 1098T form noting all fees billed and scholarships awarded.

Information about Tax Benefits for Education including the HOPE and Lifetime Learning Credits, the American Opportunity Credit for Education, and guidance for appropriate tax treatment of educational expenses, financial aid funds and scholarships is available through www.irs.gov, Publication 970 or www.ed.gov. Interested parties with questions are directed to contact the IRS Office at 1.800.829.1040.

## FINANCIAL AID

Financial aid is a means of assisting students in receiving a college education who would otherwise be unable to afford this opportunity. Selection of students to receive financial aid is based strictly on an analysis of family financial need, and is made without regard to age, sex, race, religion, national origin, or physical ability.

The Financial Aid Office, Building 1320, 925.424.1580, e-mail: lpcfinaid@laspositascollege.edu, administers financial aid in accordance with federal and state regulations and policies. A full range of financial aid programs is offered including registration fee waivers, federal Pell Grants, and Supplemental Educational Opportunity Grants (SEOG), state Cal Grants B and C, federal Direct subsidized and unsubsidized student loans, federal WorkStudy job positions, an on-campus scholarship program and referrals to outside scholarship resources.

## Eligibility

To be eligible for most sources of financial aid, a student must be a U.S. citizen, permanent resident, or other eligible non-citizen; maintain satisfactory academic progress; register with Selective Service if required; demonstrate need; be making satisfactory progress toward a declared approved major; have a high school diploma or GED, or pass an independently administered examination approved by the Department of Education or have successfully completed 6 academic units of college coursework; and must not be in default on any student loan nor owe a refund on any grant.

## PRIORITY FILE COMPLETION DEADLINES

Las Positas has established the following financial aid processing deadlines. Pell grant recipients must have applied for financial aid and followed up by 'completing their file' (submitting all requested supporting documentation) by the following deadlines in order to ensure receipt of a Pell grant the first week of classes.

Fall: .July 15

Spring: $\qquad$ December 20

## How to Apply for Financial Aid

To apply for all federal and state sources of financial aid, students should complete the Free Application for Federal Student Aid (FAFSA). Students must apply online at www.fafsa.ed.gov. Las Positas College Title IV Code is 030357. A new FAFSA must be completed each school
year. Students should apply as early as possible, preferably between January 1 and March 2 of the previous school year, for maximum aid consideration. Processing time from application to payment requires several weeks.

The federal government will e-mail or mail the student a 'Student Aid Report,' which indicates the application results and will electronically transmit the results to the colleges indicated. Once the College receives the student's FAFSA results, students who are enrolled and who qualify for a Pell Grant will be emailed a Missing Documentation notice (at their Zone email address) explaining what the student must do to complete their financial aid file in order to qualify for aid. Once a student has completed their file, they will be mailed or emailed an "Award Notification letter'. Award information is available on the Zone and on Class Web, where the amount of aid offered is indicated, as is expected payment dates. Students who have not received notification from the Financial Aid Office are encouraged to follow up to determine the status of their aid application. The Financial Aid Handbook is posted online at:
www.laspositascollege.edu/financialaid.

## How Financial Need is Determined

The FAFSA allows the government to determine the Expected Family Contribution (EFC) for each student. The EFC is based on an impartial analysis of the student's total available resources. Financial need is determined by comparing the College's cost of attendance, with the student's Expected Family Contribution. Need-based grants, registration fee waivers and loans are distributed to students who indicate financial need through this process.

## Registration Fee Waivers

California's Board of Governors Waiver (BOGW) Program waives enrollment fees for qualified residents of California for the entire school year. Students may receive a waiver for any number of units, with no minimum. All students with some financial need qualify in addition to those who receive Temporary Aid to Needy Families, Supplemental Security Income or General Assistance. Students must submit a FAFSA for processing in order to establish eligibility, or current documentation of receipt of TANF/CalWORKs, SSI or General Assistance.

## How Grants are Determined

Grants are "gift aid" from the federal or state government that do not require repayment. Eligibility is determined from the results of the FAFSA in accordance with federal and state guidelines.

## Federal Pell, SEOG and ACG Grants

Federal Pell Grant award amounts vary depending on the Expected Family Contribution and the student's enrollment status. Currently awards range from $\$ 555-\$ 5,550 /$ year. Priority for Federal SEOG grants ( $\$ 600 /$ year) are given to full-time students with 0000 Expected Family Contribution who complete their files prior to June 1.

## Cal Grants

Students should file their FAFSA prior to March 2nd in order to qualify for a Cal Grant. Community college students who missed the March 2nd deadline may still apply by filing a FAFSA prior to September 2nd, and will be able to compete for remaining grants for community college students. In addition, each students must ensure that a verification of grade point average (www.csac.ca.gov) be sent to the California Student Aid Commission. All students who have completed 16 units (not including ESL or basic skills courses) as of the end of the previous semester at Las Positas College will have their GPA
automatically sent electronically. All other students should contact the Financial Aid Office, Building 1320, for assistance in determining which school or college is required to complete GPA verification for that individual. Students will be notified directly by the California Student Aid Commission if they have been awarded a Cal Grant or can monitor their status at https://mygrantinfo.csac.ca.gov/. Students who receive a California Aid Report (CAR) form should submit it to the Financial Aid Office..

## Federal Workstudy

Students with unmet financial need who are enrolled in at least 6 units may receive a grant to work on campus, or off campus in a community service position, as part of their financial aid package under the federal Workstudy program. Students should inquire about available positions at the Career/Transfer/Employment Center, Building 900.

## Federal Direct Student Loans (Subsidized and Unsubsidized)

Once financial need has been established, students enrolled at least half-time may apply for student loans. Students must maintain half-time enrollment in order to remain eligible for loans. Those with unmet financial need may receive subsidized loans (government pays interest while in school); those without need may receive unsubsidized loans (student pays interest while in school). Loan limits are federally established and may never exceed a student's cost of attendance. Student loans do not need to be repaid until beginning six months after graduating or dropping below half-time. A mandatory entrance and exit counseling session is required for all loan students so that terms of the promissory note, avoidance and consequences of default, and student notification and responsibilities are very clearly understood. Contact the Financial Aid Office for further information about the loan process.

## Satisfactory Academic Progress Policy

In order to remain eligible for continued federal and state grants and direct loans a recipient is required to maintain certain standards of progress known as a Financial Aid Satisfactory Academic Progress Policy. This policy addresses 1) a minimum semester and cumulative grade point average (GPA), 2) minimum semester and cumulative completion rate requirement, and 3) a maximum time frame allowed to receive aid. In addition, consequences of not meeting the minimum requirements, disqualification, appeal procedures, and reinstatement of financial aid eligibility are addressed. This policy is different from the college's general standards and is based on federal Title IV regulations.

The full policy is mailed or emailed to each student along with his or her financial aid award notification, and is posted on the Financial Aid website. It is each recipient's responsibility to read this policy and be responsible to understand it and ask for further clarification, if needed. Regardless of whether financial aid was received previously, all students must have a minimum 2.0 cumulative GPA after four (4) terms of attendance and must also maintain at least a $67 \%$ cumulative completion rate (calculated as all units completed divided by all units attempted) or face financial aid disqualification. In addition, the maximum time frame allowed students to receive financial aid at a two year institution, measured in attempted units, is $150 \%$ of the program length or 90 attempted units, whichever is lower.

## Complete Withdrawal From Classes After Receiving Aid

Federal law requires students to repay a portion of the funds received if they completely withdraw before the $60 \%$ point of the term, as measured in calendar days, not school days. Note: if a student withdraws after s/he has earned $60 \%$ of his/her grant, the student does not owe any repayment. The 60\% dates for each semester are indicated on the academic calendar. Students who complete '0' units in a term with a '0' GPA are subject to the same repayment regulations unless the student can document that $s /$ he remained in class past the 60\% date.

Students who are considering withdrawing from the College are highly encouraged to visit the Financial Aid Office, Building 1320, prior to withdrawal to discuss the ramifications and to receive advice about their potential repayment.

Once the College notifies the withdrawn student of the Return to Title IV amount due, the student will have 45 calendar days to repay any Federal amount due to the College, which then will be returned to the federal government. If not repaid within 45 days, a national 'HOLD' will be placed on the student's federal financial aid record. The student will lose eligibility for all federal aid nation-wide, until satisfactory repayment arrangements are made with the federal government or until the debt is repaid in full. At the end of the school year, the account is referred to the Federal Government for collection.

Additionally, the College must pay the government directly some of the unearned portion of financial aid funds received by the student based on the amount of the registration fees which would have been assessed (even if the student received a waiver). The amount of institutional funds the College pays the federal government on the student's behalf will be posted immediately on the student's account and a College hold will be placed. The hold will be lifted only upon full repayment, or upon contracting a repayment agreement with the Financial Aid Office. The hold will be reinstated if the repayment terms of the contract are not upheld. Any portion of the institutional portion of repayment due directly to the College which is unpaid at the end of the school year may be referred to the state COTOP collection program, which repays the debt (in addition to a $25 \%$ collection fee) by retaining funds from the student's state income tax refund.

## Other Sources of Funds

Scholarships are funds generally made available by sources other than the government (such as private businesses, organizations, clubs, colleges, etc.) for students to help with the costs of their education. Generally, students must compete for scholarships. Awards have many different criteria.

## The Las Positas Scholarship Program

The Las Positas College Scholarship Program is advertised during the first week in February each year. Students may begin to apply for a variety of awards available only to College students. Applications must be downloaded from the College's Financial Aid website, www. laspositascollege.edu/financialaid. The Scholarship Program Deadline is mid-March. Scholarship recipients are invited to attend the College's Annual Student Recognition Ceremony held in May.

## Outside Scholarship List

A list of current "outside scholarships" is posted in the Financial Aid area and on the Financial Aid Website, www.laspositascollege.edu/ financialaid, and is updated frequently. These are scholarships often from local, statewide and national organizations or foundations, which
are not specifically for Las Positas students, but which may be of particular interest to LPC students. Deadlines vary greatly, so students should check the list frequently for updated information.

## Other Scholarship Opportunities

Thousands of scholarship opportunities are available. The best source of scholarship information is through the World Wide Web. Students can search huge databases to seek scholarships for which they meet the qualifications, or take advantage of several FREE on-line scholarship searches, which do the searching for the student based on an application the student completes. Las Positas recommends several excellent free searches on our web site.

## Las Positas College Financial Aid

Building 1300
Phone 925.424.1580
Email: lpcfinaid@laspositascollege.edu
Website: www.laspositascollege.edu/financialaid

## Directory of Resources for Financial Aid

FEDERAL STUDENT INFORMATION CENTER
For questions about Federal student financial aid:
8 A.M. - 8 P.M. Eastern Time
800.4.FEDAID (800.433.3243)
U.S. DEPARTMENT OF EDUCATION HOME PAGE

Federal financial aid information:
www.ed.gov/finaid.html
www.studentaid.ed.gov

## FAFSA ON THE WEB

To file a financial aid application online, or to review your FAFSA information or make changes: www.fafsa.ed.gov

## CALIFORNIA STUDENT AID COMMISSION (CSAC)

For questions and information about California financial aid opportunities, including Cal Grant A, B, and C
P.O. Box 419026, Rancho Cordova, CA 95741-9045
916.445.0880
www.csac.ca.gov
ED FUND - a service of the California Student Aid Commission
For loan questions/ problem resolution:
Ed Fund
P.O. Box 419045

Rancho Cordova, CA 95741-9045
www.edfund.org
DEFAULT PREVENTION HOTLINE: 800.298.9490
Post Default/Borrower Disputes/Closed School/False Certification Line: 800.367.1590
Paid-in-Full Letters for Defaulted Borrowers: 800.367.1589

## FINANCIAL AID INFORMATION PAGE

A free, comprehensive, objective, and independent guide to student financial aid resources, including scholarships, is sponsored by NASFAA (National Association of Student Financial Aid Administrators). It includes access to FASTWEB, an online searchable database of more than 180,000 private sector scholarships, fellowships, grants and loans. www.finaid.org

## FASTWEB

A free online scholarship research service
www.fastweb.com

SCHOLARSHIP SCAMS
Identify common financial aid and scholarship rip-offs and scams www.finaid.org/scholarships/scams

## SELECTIVE SERVICE REGISTRATION INFORMATION

Check your registration status or register directly online
www.sss.gov/regist
US CITIZENSHIP AND IMMIGRATION SERVICES (USCIS)
Appraiser's Building., Room 300
630 Sansome Street
San Francisco, CA 94111
415.705.4411
www.ucscis.gov

## INTERNAL REVENUE SERVICE

For copies of tax forms or for free copy of 'Tax Summary' 800.829.1040

Blank tax forms can be downloaded from the following site www.irs.ustreas.gov/prod/forms_pubs/forms

VETERANS EDUCATIONAL BENEFITS
Toll free: 888.442.4551
www.gibill.va.gov

## VETERANS EDUCATIONAL BENEFITS/VETERANS FIRST PROGRAM

The Veterans Office at Las Positas College is designed to assist veterans and their dependents in reaching their educational goals. The LPC Veterans Office staff are your liaisons to the United States Department of Veterans' Affairs, and they will make every effort to provide speedy educational benefit payment with a minimal amount of difficulty

Las Positas College is approved to offer instruction to service persons, reservists, and other eligible persons under Title 38, U.S. Code and Department of Veterans Affairs (V. A.) regulations. Eligibility for benefits under any of these programs is determined by the appropriate federal or state agency, and not by the College. In addition, we provide other resources and contacts, such as the ones listed below:

- Student Veteran Organization
- Veterans First Program Coordinator
- Veteran Emergency Book Loan
- Priority Registration for Veterans
- Scholarships for Veterans (example: Veterans First Scholarships, Pedrozzi Scholarships)
- Veterans Affairs Work Study
- Connection with VA Health Centers and Service
- Transition Counseling (VA Counselor available on campus)
- Veterans Resource Center - a place for Veterans to study, relax, or just hang out with other Veterans.
- Various workshops and events - New Post 9/11 Benefits, Resume Writing for Veterans, etc.
- Other student services

We encourage Veterans attending Las Positas College to contact the Veterans First Office in person, by phone, or by e-mail with questions you may have pertaining to your education, veteran affairs, educational benefits, or anything else you may need information for.

## Dependents of Veterans

A student who is a dependent of a veteran with a service-connected disability or who died of a service-connected cause may be eligible to receive a waiver of tuition and registration fees through the California Dependents of Veterans College Fee Waiver Program.

Application forms and additional information may be obtained by contacting the local county veterans service officer, listed in the telephone directory under county government, or by calling 916.653.2573. Approved authorization forms may be submitted directly to the Financial Aid Office for a fee waiver.

## Certification Process

New students should first enroll in the College and register into courses, following the regular matriculation process for all students. Once enrolled, students may apply for V.A. benefits by completing a V.A. Application for Educational Benefits, which is available from the Veterans Office, Building 1300, and an Enrollment Certification Request form and must submit a DD214 if the veteran served on active duty. Students must request enrollment certification each semester. Students must notify the V.A. Office if their enrollment, major, or address changes. The V.A. Office will make necessary certifications of enrollment, changes in enrollment, and progress.

## Evaluation of Prior Education and Training

By the second semester, all students receiving veterans educational benefits are required to 1) have submitted to the Veterans Office or the Office of Admissions and Records, official academic transcripts from each school previously attended, 2) have submitted a DD214 if they were on active duty, and 3) complete a "Veterans Evaluation" with a College counselor, which establishes a personalized education plan based on prior education and training and the student's current academic objective. The institution will conduct an evaluation ofall previous education and training and will grant appropriate credit, shorten the veteran's or eligible person's duration of the intended course proportionately, and will notify the V.A. Regional Center and the student accordingly, in compliance with Title 38 regulations.

Veterans with a DD-214 honorable discharge are granted 3 elective semester units toward an AA or AS degree and a waiver of the Wellness GE requirement (Areas of Health and Physical Education) for the AA degree or a waiver of the Physical Education GE requirement for the AS degree. The credit will be applied at the time of graduation evaluation. For more details, see a counselor or contact the Veterans Office.

## Course Restrictions for Certification

Courses will NOT be certified for benefits after the second semester until the Veterans Evaluation is complete. Only courses that meet requirements or their prerequisites for the major and degree objective as indicated on the evaluation will be certified for payment. If the academic objective is changed, the student must complete a new evaluation accordingly. The College can only certify for Certificate, AA, or AS majors listed in the Las Positas College Catalog, or for transfer majors for which official articulation has been completed between Las Positas College and the intended transfer college and program.

Veterans will be permitted to enroll into work experience courses but must do so under the Parallel Plan as practical training for their major.

There are individual academic programs and courses listed in the Catalog that may not meet V.A. approval for educational benefits. Contact the College Veterans Office, Building 1300, Room 317, to
determine if your intended program is approved for benefits. Note: Programs previously approved are subject to change as determined by the Department of Veterans Affairs.

## Eligibility

Eligibility for VA educational benefits can be extended to veterans, reservists, and children of service-connected deceased or disabled veterans under the following programs:

## The Montgomery GI Bill (Chapter 30)

Enlistment after July 1, 1985 is required. The serviceperson must have participated in the pay reduction program. The monthly payment rate will vary with the length and type of service. Monthly "selfcertification" is required to insure benefit payments.

## U.S. Department of Veterans Affairs Vocational

 Rehabilitation Program (Chapter 31)This program is available to certain veterans who have a serviceconnected disability of 20 percent or greater. It provides a monthly stipend and also covers the cost of tuition, books, supplies, and tutorial or special assistance. Although the date of entry to active service is not considered, students should use this benefit within twelve years of the date of discharge. Eligibility is determined on a case-by-case basis.

## Post-9/11 GI Bill (Chapter 33)

A new education benefit program for individuals who served on active duty on or after September 11, 2001. Eligibility is determined by length of service and entitles the veteran to a percentage of the following: Cost of tuition and fees, monthly housing allowance, and a yearly stipend for books and supplies up to $\$ 1,000$.

## Dependents' GI Bill (Chapter 35)

A child or spouse of a service-connected deceased or 100-percentpermanently disabled veteran may be eligible for VA educational assistance. The marital status of a dependent child is not a factor in determining eligibility. Benefits may be used until the dependent has reached the age of twenty-six or for eight years from the date that eligibility is determined, whichever is later.

## Reservists Montgomery GI Bill(Chapter 1606)

Enlistment or extension for six years of reserve duty after July 1 , 1985 is required. This program does not require a contribution by the service member, but the reservist must be actively drilling.

Reserve Educational Assistance Program (Chapter 1607)-REAP
A Department of Defense education benefit designed to provide educational assistance to members of the Reserve components (who serves on active duty on or after Sept. 11, 2001 at least 90 consecutive days or more) called or ordered to active duty in response to a war or national emergency(contingency operation) as declared by the President or Congress. The Department of Defense and the Department of Homeland Security will determine who is eligible for this program. The Department of Veterans Affairs will administer the program and pay benefits from funds contributed by the Department of Defense.

## Las Positas College Veterans Office

Phone 925.424.1571
Email: lpcveterans@laspositascollege.edu
Website: www.laspositascollege/veterans

## California Department of Veteran Services

1227 O Street/Sacramento, CA 95814
1 (800) 952-5626
1 (800) 324-5966 (TDD)
1 (800) 221-8998 (Outside California)
www.cdva.ca.gov/

## Additional Resources

GI BILL
www.gibill.va.gov/

## COMBAT VETERANS INFORMATION

www.va.gov/Environagents/page.cfm?pg=16

## TRANSITION ASSISTANCE PROGRAM

www.va.gov/opa/fact/tranasst.asp
PTSD AND COMBAT VETERANS
www.ncptsd.org/topics/war.html

## SURVIVORS BENEFITS

www.vba.va.gov/survivors/index.htm
WOMEN VETERANS INFORMATION
www.vba.va.gov/bln/21/Topics/Women/
EDUCATIONAL BENEFIT INQUIRIES
1-888-442-4551
DIRECT DEPOSIT AND ADDRESS CHANGES
1-877-838-2778
DEBT MANAGEMENT CENTER
1-800-827-0648
COMPENSATION PENSION
1-800-827-1000
VOCATIONAL REHABILITATION EMPLOYMENT
1-800-827-1000 (Press 1, then 0)
LOAN GUARANTEE
1-888-232-2571
VETERANS HEALTH CARE
1-877-222-8387
LAS POSITAS COLLEGE STUDENT VETERANS ORGANIZATION
E-Mail: lpcveterans@laspositascollege.edu
CONCORD VETERANS CENTER
www.va.gov/rcs
STUDENT VETERANS OF AMERICA
www.studentveterans.org/
WOMEN VETERANS INFORMATION
www.vba.va.gov/bln/21/Topics/Women/

## STUDENT PROGRAMS AND SERVICES

Library (Learning Resources Center, LRC)

The Library at Las Positas College is located in Building 2000. The mission of the Library is to provide the information services and resources required to meet the needs of the educational programs of the College. It exists to facilitate and improve learning by supporting and expanding the instructional capabilities of the College and providing students with the opportunity to develop information competency skills for lifelong learning. The Library offers reference and instructional services to meet the needs of students, faculty, and staff. The Library encompasses all types of print, non-print, and online resources including a wide variety of books, audiovisual materials, magazines and newspapers, and full-text periodical databases. The Library maintains an extensive website that provides access to the Chabot-Las Positas College Libraries online catalog, online databases, and research and instructional guides. The Library facilities include computer labs, study carrels, group and soundproof study rooms, and listening and viewing stations. Currently registered students, faculty, and staff may check out books and materials from both the Las Positas College and Chabot College Libraries. A current College ID is required.

## Integrated Learning Center (ILC)

The Integrated Learning Center in Building 600 houses the Math Lab, English as a Second Language, and English 1A Lab.

## Math X

Math X is a Mastery Learning Program in Mathematics using programmed materials with instructor supervision. Math $X$ is designed for students to work at their own pace, for those who need more time to take tests, and to reduce math anxiety. Credit may be earned in Mathematics 55, 65, 71, and 107. Math X courses are also held in building 600.

## Open Writing Center

Students can visit the Open Writing Center to work one-on-one on any writing assignment for any class.

## English as a Second Language

ESL students can take advantage of the following services:

- Computer-assisted learning opportunities, including grammar and vocabulary activities
- Complete their 1 hour lab assignment for each course
- Work with study groups and instructors'


## Computer Laboratories

Las Positas College has computer laboratories on campus for student use. PC and Macintosh computers are loaded with a variety of software programs to assist students in completing course assignments and projects. In addition to the computers available in the LRC, the Computer Center, Building 800, and the English Laboratory, Building 400, have computers open to students on a first-come, first-served basis at various times during the day. Consult the lab staff for available hours.

Use of a College computer lab requires the purchase of a Print Fee Card obtained from the Bookstore or vending machines. Discounted print cards are available and can be purchased in the Bookstore.

## Distance Education

Las Positas College typically offers Distance Education classes in two formats: online, which is conducted over the Internet; and hybrid, which is a combination of online and on-campus instruction. In addition to class sessions, materials, and exercises being accessible online, Distance Education classes make full use of interactive technologies, such as email, discussion boards, blogs, chat, and even group assignments so students can stay connected with their instructor and fellow students.

Because Distance Education classes offer access to accommodate the varied lifestyles and learning styles of students, Las Positas College offers an array of General Education classes in this format. Moreover, students can take Distance Education classes to earn many, if not all, of the units necessary to obtain certain degrees and certificates. Current class offerings can be found in the Class Schedule, on the CLASS-Web website, and on the Las Positas College Online Learning website.

Links for the above websites can be found on the College's home page at www.laspositascollege.edu. For more information, including support services, orientations, success tips, and privacy information, see the Las Positas College Online Learning website, or call 925.424.1142.

## SPECIAL ACADEMIC PROGRAMS

## Honors Transfer Program

The Honors Transfer Program has transfer agreements with several colleges and universities throughout California. Members of the Honors Transfer Program (HTP) have the option to participate in honors academic activities (honors courses, honors contracts, and honors colloquia) designed specifically to encourage independent and creative learning. Honors academic activities are designated with an " H " (for Honors) on the student's transcript. At graduation, honors students receive special recognition and an honors seal affixed to their diploma.

Eligibility requirements for applying for membership in the Honors Transfer Program are:

- Cumulative GPA of 3.5;
- 12 units at Las Positas College;
- Eligibility for English 1A.

For additional information, contact the Honors Program Coordinator at 925.424.1266 or www.laspositascollege.edu/honors

## Independent Study

Independent study courses are open to all students and may be offered under any subject area contained within the Catalog using the number 29. Independent study must be contracted through an instructor for research, field experience or skill development. Check with the Counseling Center, Building 700, concerning transferability of these courses to four-year institutions.

## LaPTechS-Business, Electronics/CIS

Las Positas Technical Support (LaPTechS) is an innovative entrepreneurial venture offering technical support services to the campus community. Within a work based learning model, students get hands-on training in a workplace environment. Students practice hardware and software installations, computer repair, assessment, maintenance and troubleshooting techniques. Business applications
include data and information collections, storage and retrieval, document preparation, customer service, verbal and non-verbal communications, and job skills preparation. LaPTechS creates opportunities to learn all aspects of business operations, technical support, and the development of interpersonal skills. For additional information call 925.424.1236.

## Speech and Debate Program

The Speech and Debate Programs, otherwise known as "Forensics" or "The Talk Hawks" provides students with an intensive focus on enhancing research, writing and performance skills. Forensics students compete on an intercollegiate basis at tournaments in the areas of Public Speaking, Oral Interpretation, and Debate. Besides traveling to competitions, students in the nationally renowned program also host two on-campus tournaments a year and a Speech Performance night. With this opportunity, students experience accelerated growth in their communication skills and self-esteem. For more information see page 153 .

## Internships

Internship opportunities are available at the College. Interested students who meet qualifications are placed in carefully structured work environments with local employers. Internships provide opportunities to apply knowledge gained in the classroom in a real world setting and can be an important part of career development for students. Students must concurrently enroll in the Internship Seminar course. Placements are contingent upon the availability of an appropriate internship site, employer criterion and student qualifications, and are at the discretion of the employer. Students and employers should contact the Work-Based Learning Coordinator at 925.424.1255.

## Occupational Work Experience Education

The Occupational Work Experience Program incorporates participants from business, industry, and all levels of governmental agencies. The program enables students to apply their classroom instruction to related career employment for training and experience. The program increases the practicality of students' class-work by giving them the opportunity to examine and utilize the latest techniques, procedures, and equipment in a business setting. Close coordination and supervision by the College ensures that the Work Experience Program becomes a real learning opportunity related to the student's area of study.

Las Positas College offers two Occupational Work Experience Programs. The Parallel Plan allows students to concurrently enroll in College courses while working. The Alternate Plan permits students to study full-time one semester and work full time the following semester. Refer to Catalog page 164 for course descriptions.

Work Experience education is a requirement for graduation in many of the occupational programs at the College. Students majoring in programs requiring Work Experience should enroll in that program's Work Experience course. Other students seeking elective or transferable credit also may enroll in the Occupational Work Experience Program.

Regulations governing the operation of Work Experience education programs may be found on Catalog page 167.

## Community Education

Community Education classes are designed to provide personal development, cultural enrichment, and job training to people of all ages. These classes are fee-based and not for credit. At present, Community Education offers classes in fitness and health, human development, home and garden, computers, business, arts and letters,
financing, and college preparatory skills. For information regarding Community Education classes at Las Positas College or to suggest a Community Education class, telephone 925.424.1467.

## Continuing Education

Continuing education classes are designed to provide in-service education for persons who must maintain a professional license by periodic training and upgrading of their skills. Typically, such classes are required in the nursing, dental hygiene, real estate, and accounting professions. Organizations or individuals who desire information regarding continuing education opportunities, or who wish to suggest a needed continuing education class, should telephone 925.485.5212.

## Contract Education

Las Positas College contract education classes are offered through the District Office through contracts for educational services with public or private agencies, corporations, associations, or individuals. An active outreach program in contract education is conducted by the District to help business, industrial and public organizations develop training programs tailored to meet their needs. Examples include Business Communications, Supervision, CPR and First Aid, English as a Second Language, Commercial Law, Word Processing and Computer Skills, Pre-Retirement Planning, Radiation Technology, Technical Writing, and certificate or degree programs in technical and general education. Courses can be offered "on-site" (at the employer facility) or on campus. Organizations or persons desiring information on how the District can provide educational training programs to meet specific training needs should telephone 925.485.5212.

## QUEST (Expanding Education for Mature Adults)

College age lasts a lifetime, especially for those who are eager to learn. The QUEST program is designed to meet the educational needs of adults, 55 years and older. Classes are offered in a variety of disciplines such as art, English (writing), and physical fitness. Classes are held in senior and community centers throughout the Valley.

## Tech Prep (Technical Preparation Programs)

Tech Prep establishes a balance between academic instruction, technical/vocational training, and career development for students. The Tri-Valley Educational Collaborative (TEC) is comprised of representatives from the Tri-Valley Regional Occupational Program (ROP), Las Positas College, local school districts, CSU-East Bay, local business and community partners. Faculty, administrators, and business representatives work together to build seamless career pathways designed to prepare students for careers from high school through college. For further information, contact the Dean of Academic Services, 925.424.1324

## High School Articulation

Las Positas College recognizes the value of coursework previously completed at the secondary level through local high schools or ROP's (Regional Occupational Programs). On an ongoing basis, articulation agreements between Las Positas College and these secondary schools are established when deemed appropriate by the College faculty in the discipline. These agreements provide high school (or ROP) students the ability to apply prior work towards Las Positas College requirements. There are two levels of articulation agreements: Noncredit Articulated Courses, and Credit-by-Examination Articulated Courses. In both instances, in order for the student to receive recognition of their work once they reach the College, the articulation agreement between the high school and the College
must have been in place at the time the student completed the work at the high school.

The College home page, www.laspositascollege.edu, provides a detailed discussion of High School Articulation, along with directions and application forms for students, high schools/ROPs and College staff. This website also lists current Articulation Agreements between the College and high schools and ROPs. Forms, directions and a listing of current articulation agreements are available online: www.laspositascollege.edu.
Select: Classes and Programs > High School ROP Articulation

## Noncredit Articulated High School Courses

High schools and ROPs may request noncredit articulation* status for a course offered at the secondary level. The course will be accepted for articulation status if the College faculty determine that the course offered at the secondary level is comparable to a specific community college course. (Course agreements which had previously been identified as " $2+2$ " fall into this definition.)

Noncredit articulated high school courses can be applied to Las Positas College requirements, but cannot be granted College credit, unless the student or course has also qualified under the Credit-by-Examination process (see discussion below). There are several advantages to pursuing articulated courses at the high school level. Students moving from high school to LPC will be much better prepared if the expectations of the College faculty are met through the preparation provided by high school teachers. Articulated courses can also meet certificate and major requirements for some degrees (primarily occupational) at LPC. This enables students to go directly into the more advanced courses when they reach the College. (Students still need to meet full unit requirements for these certificates and degrees.)
*Noncredit Articulation of High School (Secondary) coursework is offered under the provisions of the California Administrative Code, Title 5 and the process is included in the CLPCCD Administrative Rules and Procedures. (High School [Secondary] Articulation).

## Credit-by-Examination Articulated High School Courses

This second level of high school course articulation** at Las Positas College can also provide students with college credit for certain courses completed at the High School or ROP. In addition to agreeing that the course content is comparable, the College faculty also must design or approve the final exam given for the course by the high school or ROP, or in some instances may require that the final be taken at the College. The College faculty members who normally teach the College course must determine the nature and content of the exam. Such credit may be granted only to a student who is registered at the College and in good standing, and only for a course listed in the Catalog. The student's transcript will be noted to show that credit was earned by examination. The amount of credit to be granted cannot be greater than that listed for the course in the Catalog. Units will not count toward the 12 -credit residency requirement of the College.
**Credit-by-Examination is offered under the provisions of the California Administrative Code, Title 5 and the process is included in the Administrative Rules and Procedures. (Course-wide Credit-by-Examination)

In order for students to receive credit for a course with a Credit- byExamination Articulation agreement, they need only to provide proof of completion at the high school level, after they begin a course of study at the College. Refer to the Las Positas College website for
forms and directions. Individual students may also petition College instructors for Credit-by-Examination for College courses for which there are no Articulation Agreements. See Credit-by-Examination (Individual Student Application), Catalog page 32.

## COUNSELING SERVICES

Counseling services, located in Building 700, are central to student success at Las Positas College. Counselors provide academic, career and personal counseling services. They orient new students and teach psychology-counseling courses in career or human services selection, orientation to the College experience, study skills, peer support training, re-entry support and interpersonal relationships. Each student meets with a counselor to select courses based upon the student's skills and interests and develops a Student Education Plan (SEP) to meet career, and/or college or university transfer requirements Assessment scores are interpreted for the student by the counselor, and articulation agreements with four-year colleges and universities are used to construct accurate student plans for transfer. Counselors remain available to students throughout their college career to discuss concerns that may be affecting their academic progress. The Counseling program is organized under the major services explained below.

## Academic Counseling

Counselors assist students with selection of courses in which they can succeed and that lead them toward their goals. Courses considered are based upon the student's assessed skills, their selected career and/ or the institution to which they plan to transfer.

## Career Counseling

Counselors are available to assist students in self-assessment and career selection processes. Students will be encouraged to examine their skills, interests and aspirations and to research career possibilities that offer opportunities for utilizing their unique skills and personal qualities.

## Personal Counseling

Counselors hold graduate degrees in counseling psychology and are fully qualified to provide individual and group personal counseling. Short-term confidential personal counseling is available to help students discuss ways to remove personal barriers to their academic progress. Referral to community resources is available for those requiring long-term personal counseling.

## Career/Transfer/Employment Center

It is the mission of the Center to meet the academic needs of our students by providing accurate educational and career information that matches their future goals through coordinated resources, activities and services.

## Transfer Services

Transfer services include: individual appointments with LPC Counselors and meetings with four-year university representatives, referrals to appropriate faculty and services, assistance with technology in the articulation of coursework (ASSIST) and college applications, workshops, a college fair, and a resource library. Las Positas has guaranteed admission with UC, CSU, and private universities and concurrent/cross registration with UC Berkeley and CSU East Bay.

## Career and Employment Services

Career planning is an integral part of the educational process. The Center staff assists students in researching majors and occupations
through books, technology (EUREKA - computer software program), workshops and referrals to experiential opportunities such as internships and job shadowing. Psychology-Counseling 10, Career and Educational Planning, provides career assessments, in-depth career exploration, and guidance in educational planning for transfer. The College also partners with the Tri-Valley One Stop Career Center that provides career and employment services to our community members.

## Employment Services

Employment services are available for students who qualify for Federal Work Study on campus employment opportunities. Resume and interview assistance is available for students looking for both full time and part time off campus employment. An annual Employment Fair is held in spring

## Assessment

The assessment process is a vital part of the College's counseling service. New students, unless exempt, are assessed in English, English as a Second Language (ESL), mathematics, and chemistry skills. Counselors utilize this information, along with other measures, in helping students to select courses in which they will succeed. The Assessment Center, Building 1000, also provides both career interest and aptitude assessments that will help students to make informed career selection decisions. Counselors assign these assessments and interpret results to students in the career counseling process.

## Multiple Measures Philosophy Statement

The mission of the Chabot-Las Positas Community College District is to provide quality educational opportunities to all students who seek to increase their knowledge and to improve their skills by enrolling in general education, career and transfer education, continuing education and basic skills courses. While it is recognized that the final responsibility for the selection of proper courses rests with the student, the College offers a variety of programs and services prior to enrollment to help advise students about how to match their individual educational needs with specific college resources. Past practice and legal mandates both indicate that any single assessment instrument will be inadequate for successfully advising students as to appropriate course enrollment. Multiple measures assessment must, therefore, be the process for all recommended course enrollments, including advice given by counselors, instructors, administrators and classified staff.

Multiple measures assessment is broad in scope. No list of factors that may be included in a multiple measures assessment is exhaustive; however, some general categories and examples can be outlined Student factors may include cognitive skills, which may be inferred from test scores, GPA and transcripts; emotional well-being, motivational level and educational goals which may be elicited in an interview or self-reported; social factors, such as life experience, family responsibilities and social support for educational effort; economic factors, such as job demands and financial resources; and physical factors. Factors associated with the instructor, the institution and the community can often interact with student factors to further indicate the potential for success in a given course.

## NEW STUDENT ORIENTATION

Program Planning Session
Students new to Las Positas College and who are without previous college experience are required to attend a scheduled orientation session prior to registering for classes. The session, which includes counselor interpretation of the results of the student's English, English
as a Second Language (ESL), mathematics, and chemistry assessments, is scheduled AFTER the assessment session. In this orientation session, counselors give new students vital information for making informed decisions about their college career, and help them select their first semester courses.

## EXPO - Orientation Program

In addition, new students are encouraged to attend an EXPO LPC course scheduled for the week prior to the beginning of the Fall term. This student orientation program provides important College information as well as opportunities to meet other new students, student leaders, faculty, counselors and administrators.

## Counseling Electronic Mail (e-mail)

Students and prospective students can contact the Counseling area to receive answers electronically from Counseling representatives at counseling@laspositascollege.edu.

## Tutoring Program

The Tutoring Program, located in the Reading Room in the Multidisciplinary Building, 2400, Room 2401, is dedicated to providing the support and assistance students need to be successful in their course work. Free individual and small group tutoring is provided in specific content areas as well as study skills assistance. Student tutors are recommended by faculty members for their positions and can receive course credit for tutoring as well as classes in tutor training. Positions as paid tutors are also available. Students are invited to request tutoring or to seek positions as tutors.

## Disabled Students Programs and Services (DSPS)

Disabled Students Programs and Services, is committed to excellence and accessibility for all students. DSPS offers support services for students with physical, communication, learning and psychological disabilities. Support services include priority registration, academic, career and disability-related counseling, new student orientation, interpreters, tutors, note takers, test-taking facilitation and community referrals. Students with verifiable disabilities are eligible for accommodations related to those disabilities. Credentialed, certified or licensed professionals must verify the disability. DSPS is located in Building 1500. Students may make appointments by calling 925.424.1510; the DSPS Coordinator can be reached at 925.424.1528.

## High Tech Center

DSPS has a dedicated technology center in Building 1500 for students with disabilities. PC computers are available along with other adaptive hardware and software to assist students in the areas of reading, writing, spelling and computation skills.

## Learning Skills Program

The Learning Skills Program is designed specifically to assist the learning disabled student who has the potential to succeed in a community college environment. The program includes an initial diagnostic assessment and evaluation to determine eligibility for learning skills lab classes, individualized instruction, academic advising, and open access to the High Tech Center instructional lab. The Learning Skills Program is located in Building 1500; the Learning Skills Specialist can be reached at 925.424.1524.

## Web Accessibility

Las Positas College is committed to providing web pages that meet Section 508 guidelines for web accessibility. Toward that end, each of the top-level pages on the website and all other pages managed
by the College's Webmaster have been or are being modified to meet accessibility guidelines. In addition, DSPS and the Web team are educating faculty and staff on accessibility concerns including information about Section 508 compliance for web page content. Students who experience difficulties accessing a web page should contact DSPS at 925.424.1524.

## Extended Opportunity Programs and Services

Extended Opportunity Programs and Services (EOPS) provides financial assistance and support services for low-income students with unique and special needs created by language, social, and economic situations. A variety of programs, services, and activities have been directed to the identification, recruitment, retention, and transition of EOPS students to the four-year college/university and/ or career placement. Included services are: financial grants and book certificates; academic, career, and personal counseling; new student orientation and readiness programs; special assistance in tutoring and peer advising; transfer counseling; field trips and cultural enrichment activities; and information and referral services.

Program eligibility is based on a history of low income and demonstrated financial need. All candidates must be full-time students and complete required application forms. Information and assistance may be obtained at the EOPS Office, Building 1500, or call 925.424.1590.

## Cooperative Agencies Resources for Education (CARE)

The CARE Program provides a variety of services and activities to assist single parent students in achieving educational goals. They receive special counseling, support groups, child care, stipends, book certificates, transportation expense reimbursements, automotive repair and maintenance service, job search assistance, tutoring and peer advising. To be eligible for CARE, students must be attending college full-time, receiving Temporary Assistance to Needy Families (TANF), have a child who is under fourteen years of age, and be determined eligible for Extended Opportunity Programs and Services (EOPS). The CARE office is located in Building 1500. For additional information call 925.424.1593.

## CalWORKS Program

The Tri-Valley CalWORKs (California Work Opportunities and Responsibility to Kids) Program serves parents who are attending school as part of their Welfare-to-Work plan with the county. The program offers career counseling, academic advising, coordination with county welfare offices, transitional child-care funding, and on-campus and off-campus job placement. In addition, eligible students may apply for the Tri-Valley Housing Scholarship through the CalWORKs Program. For more information contact the CalWORKs Coordinator, Building 900, or call 925.424.1432.

## Student Employment Services

Employment services are available for students who qualify for Federal Work Study on campus employment opportunities. A listing of current part- and full-time job opportunities is posted in the Student Center Building, 1700. An annual Employment Fair is held in spring. Resume and interview assistance is available in the Career/Transfer/ Employment Center, Building 900.

## Housing

Las Positas College does not provide dormitories or other types of College-sponsored housing. Listings of rentals in the area are posted on the bulletin board in the Student Center, Building 1700.

# STUDENT PROGRAMS AND SERVICES/ STUDENT ORGANIZATION AND ACTIVITIES 

## Public Transportation

Transportation to and from the College is an individual responsibility. WHEELS is a service of the Livermore-Amador Valley Transit Authority (LAVTA) and provides public transportation to and from the College. Route schedules are available in Building 1700. For more information contact WHEELS at 925.455 .7500 or at www.wheelsbus.com.

## Bookstore, Textbooks and Supplies

All students are required to furnish their own textbooks and supplies that are available at the Bookstore or online via www.efollett. com. Typical costs for books and supplies average $\$ 400$ to $\$ 600$ per semester for students pursuing a full-time program. Students financially unable to buy their own books and supplies should consult the Office of Financial Aid. Bookstore hours are posted outside the Bookstore, Building 1300. Bookstore information is on the College web site, www.laspositascollege.edu

## Student Health Center

The Student Health Center is staffed by a registered nurse practitioner and is located in the Student Center, Building 1700. Services include evaluation, treatment for minor illnesses and injuries, prescriptions, health education information and materials, birth control information, and health care referrals. Also available are mental health services and referrals. For more information, contact the Health Center at 925.424.1830. For information on the mandatory health service fee, refer to Catalog page 14, "Fees and Refunds."

Students who have a health condition that may require sudden emergency care are asked to advise and alert each of their instructors as well as the Nurse Practitioner in the Student Health Center to this condition at the beginning of each term.

## Student Health and Accident Insurance

Students are responsible for providing their own health and accident insurance. For those students who do not have such coverage, health, accident, and dental policies may be obtained from the Student Health Center, Building 1700.

## First Aid

First aid stations are located in the Security Office, Building 1600, and the Student Health Center located in the Student Center, Building 1700.

## Medical Emergencies on Campus

For emergency assistance, dial *16 from campus pay phones or 1699 from campus office phones. All cases of personal injury or medical emergency should be reported to the Security Office, Building 1600. The Student Health Center, located in the Student Center, Building 1700, can accommodate students with minor injuries and illnesses.

## Security Services

Safety and Security Services are located in Building 1600. Security officers are responsible for providing the following services: information, assistance, escort service, security of personnel, security of facilities, emergency assistance, supervision of the College parking lots, investigation of crime on campus, and lost and found. Requests for service and reports of hazards and other problems should be directed to the Security Office, Building 1600, or call 925.424.1690.

## Lost and Found

Lost and Found is located in the Security Office, Building 1600. Articles deposited with Lost and Found are held for six months. After this period, unclaimed items are disposed.

## Escort Service

The College provides an escort service for students each evening from 6:00 p.m. to 11:00 p.m. Escort service can be obtained by contacting the Security Office, Building 1600 or call 925.424.1690.

## Parking

Parking on campus is a privilege extended by the Board of Trustees to College faculty, staff, students and guests. To ensure safety and the efficient use of available parking space, rules and regulations for vehicle registration and parking are established. Drivers of vehicles using College parking lots shall comply with the Board approved rules and regulations. Drivers who do not comply may be cited and their vehicles may be towed away and impounded at the owner's expense. Repeated violations of the College rules and regulations may also cause a student to be subject to disciplinary action and may lead to the removal of the parking privilege.

## Parking Permits

Parking at Las Positas College is by permit only. Student Parking Permits for each instructional term can be purchased online or at Admission \& Records, Building 700. Daily Parking Permits can be purchased from dispensers located in the parking lots. Parking Permits do not guarantee a parking space. They do authorize parking in available spaces. Refer to this catalog, page 14, for parking fee information. Students who have a DMV disabled placard may park in the handicapped designated areas of student lots. Disabled students must have, in addition to their disabled placard, a Las Positas College Parking Permit. NOTE: There is no grace period for permits. You must display a Parking Permit each day you are parked on campus.

## Visitor Parking

A 30-minute visitor parking zone is provided at the entrance to the College. Long-term visitor parking is available in each student lot when a daily Parking Permit is purchased from a ticket dispenser and displayed on the dashboard on the driver's side. Visitors with a DMVdisabled placard may park in the Visitor parking lot without purchasing a daily Parking Permit from the ticket dispensers in the lot, pursuant to the Vehicle Code.

## STUDENT ORGANIZATION AND ACTIVITIES

## Philosophy

Las Positas College is committed to providing programs and services that foster student participation in government, activities, organizations and cultural events. The College recognizes the important role of students as active and meaningful participants in the shared governance decision-making process of the institution. Comprehensive leadership development and orientation programs for students to strengthen their knowledge, expand their understanding of governance issues, increase their preparedness, and enhance

# STUDENT ORGANIZATION AND ACTIVITIES/ <br> STUDENT RIGHTS AND RESPONSIBILITIES 

their credibility in the community are important and essential responsibilities of the College.

## Associated Students of Las Positas College (ASLPC)

The Associated Students of Las Positas College is the campus student government, providing opportunities for students to participate in the governance of the College on both local and statewide levels. Elections of ASLPC officers and senators are held each spring. ASLPC representatives have the opportunity to serve on numerous College committees.

The ASLPC is organized in two bodies: the Executive Council (composed of the elected officers) and the Student Senate (composed of members who have obtained a specific number of student signatures). All ASLPC officers and senators must be registered in at least 6.0 units at the College and are required to maintain a minimum 2.0 GPA.

Through ASLPC, special services are provided for students. These include social and cultural events, information on clubs and community services, and many other services that vary as opportunities develop.

The ASLPC office is located in Building 1700 and may be contacted at 925.424.1490. For more information go to www.laspositascollege.edu/ aslpc/index.php.

## Student Clubs and Inter-Club Council (ICC)

Students also have the opportunity to form clubs relating to common social, recreational, or other interests. Each club must have a College faculty advisor recruited and nominated by the club members.

The Inter-Club Council is the representative body that coordinates interclub activities and funds, promotes communication and cooperation among clubs on campus. The ICC is composed of a voting representative from each club, representing cultural, educational, honorary, philanthropic, and social interests. For Student Clubs and ICC information, go to www.laspositascollege.edu/studentclubs/ index.php.

## Alpha Gamma Sigma

Alpha Gamma Sigma (AGS) is the official Las Positas College Honor Society. AGS membership will be noted on students' transcripts when they graduate or transfer from Las Positas College. Membership eligibility and other information are available from the club officers, the Office of Associated Students, Building 1700, or the Office of the Vice President of Student Services, Building 700. For more information on AGS, refer to www.lpcags.com.

## Social Activities

Numerous social activities are offered at Las Positas College each semester through ASLPC. Students interested in working on social activities and entertainment should contact the Office of the Associated Students, Building 1700.

## The Express Newspaper

The Express College newspaper is produced by mass communications students and published weekly. Students learn various aspects of newspaper production, including research, interviewing, reporting, writing, editing, proofreading, meeting deadlines, electronic typesetting, graphic design, advertising design, and page production
using Adobe InDesign and Photoshop. To join the team, come to Room 305, Building 300, call 925.424.1240, or e-mail LPCExpress@laspositascollege.edu.

## Radio LPC

Radio LPC provides an opportunity for students to learn about radio production, managing station operations, preparing commercial radio programming, selling ads, creating and maintaining audio streams, podcasts and direct feeds. Students can listen to Radio LPC at www.radiolaspositas.com.

## Naked Magazine

Las Positas College launched it's first mass communications magazine in Fall 2008 via the Magazine and Feature Writing course. This course enables a student to engage in feature writing, freelance journalism, photojournalism, graphic arts and more.

## Performing Arts

A wide range of opportunities is available to Las Positas College students in performing arts. The theater program presents a fall semester play, spring semester musical, and summer outdoor Shakespeare production, plus touring children's theater show and student directed one acts. The Music Department's program includes choirs, vocal jazz ensembles, and an instrumental jazz ensemble, plus opportunities to perform at recitals held each semester. The Dance Production class presents two dance programs a year, featuring dances choreographed by students and faculty. Forensics Team events include reader's theater, oral interpretation and debate.

## Intercollegiate Athletics

Las Positas College Kinesiology, Health \&Athletics Division offers student-athlete participation on eight intercollegiate athletic teams, serving approximately 120 student-athletes each year. Competitive teams for both men's and women's athletic programs are basketball, cross country, soccer and swimming/diving.

Athletics at Las Positas College, as with all California community colleges is governed by the general regulations of the State Community College Athletic Code, as well as specific regulations of the Coast Conference in which Las Positas College holds membership. Students who participate in athletics must meet the requirements of the California Community College Athletic Association (CCCAA). Academic standing, enrollment within an intercollegiate class, completed and approved eligibility forms, and a physical exam are required to compete in both the intercollegiate class and intercollegiate sport.

The Athletic Director and the Vice President of Academic Services monitor the integrity of the intercollegiate athletic program regarding rules, compliance, eligibility, and competiveness. Students will work with our counseling staff towards a degree/certificate or transfer. All incoming student-athletes must meet with a counselor and complete a Student Educational Plan (SEP). Periodic reports on attendance and class progress are requested from each student-athlete's instructors. These reports are reviewed by the respective coaches, the athletic director, and when indicated, the counselor.

Las Positas College is a member of the Coast Conference. Both the men's and women's athletic teams engage in competitive conference and non conference competition against both Northern and Southern California teams. If you are interested in more information regarding athletics please check out the college's athletics website at www.laspositascollege.edu/athletics.

## STUDENT RIGHTS AND RESPONSIBILITIES

## Student Grievance Policy

The Chabot-Las Positas Community College District encourages all students to pursue academic studies and other College-sponsored activities. In pursuit of these goals, the student should be free of unfair or improper action from any member of the academic community. The Chabot-Las Positas Community College District accords every student the right of protection. Students, however, must also be aware that they are responsible for complying with all College regulations and for meeting the appropriate College requirements.

Student Grievance procedures have been developed by Las Positas College to provide students with a prompt and equitable means of seeking an appropriate remedy for any alleged violation of rights and to insure that each student is fully accorded due process. Both the Student Grievance Procedures and the Student Conduct and Due Process Procedures outline the process for seeking resolution, and develop the procedure for filing and processing complaints, including time lines and decision-making authority.

The general provisions and specific procedures related to this policy are available from the Office of the Vice President of Student Services, or the Dean of Student Service Offices Building 700, and the Office of the Associated Students, Building 1700. You may also find this information online at www.laspositascollege.edu.

## Student Conduct and Due Process

In joining the academic community, the student enjoys the right of freedom to learn and shares the responsibility in exercising that freedom with other members of the academic community. It is the policy of the District not to impose student discipline for acts occurring away from the College and not connected with College activities unless the student's conduct affects the functions of the College. Procedures within this section are based upon Title 5, California Administrative Code (sec. 41301 through 41304), and the California Education Code (sec. 76030-37).

When a student is charged with misconduct, such as: cheating, plagiarism, forgery, disruption, physical abuse or theft, the charge shall be processed in accordance with the policy and procedures in order to protect the student's rights and the College's interest. A student may be expelled, suspended, placed on probation or given a lesser sanction, as deemed appropriate, for one or more of the causes occurring on College/District premises.

The general provisions and specific procedures related to this policy are available from the Office of the Vice President of Student Services, or the Dean of Student Services Offices, and the Office of the Associated Students.

## Academic Honesty Statement

Las Positas College promotes student success by providing high quality instruction and learning resources. The primary factor in student success, however, is the student's devotion of considerable time and energy to the learning process. A high grade in a Las Positas College course is, therefore, something of which both the college and the student can be proud. It indicates mastery of the material achieved through hard work.

Any form of academic dishonesty, whether cheating or plagiarism, undermines the value of grades for the entire student body and the College as a whole. It is an affront to every student who has labored to achieve success honestly and a threat to the College's reputation for academic excellence. For these reasons, the College does not tolerate any form of academic dishonesty. Any student attempting to gain an unfair advantage in a course will be severely penalized, up to and including suspension from classes. The actions taken against the student will also be permanently entered into the student's record in the case of repeated, flagrant, or serious incidents.

For purposes of this policy, the following definitions apply:
Cheating is defined as fraud, deceit, or dishonesty in an academic assignment. It may involve:

- Copying or attempting to copy from others during an examination or for an assignment;
- Communicating examination information to, or receiving such information from, another person during an examination;
- Preprogramming a calculator or computer to contain answers or other unauthorized information for examinations;
- Using, attempting to use, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment or examination in question, such as: books, Web sites, prepared answers, written notes, or concealed information;
- Allowing others to do one's assignment or a portion of one's assignment or using a commercial term paper service;
- Allowing someone else access to your secure online classroom to complete assignments or portions of assignments;
- Gaining unauthorized access to another student's online classroom account;
- Altering examination answers after an assignment has been completed or altering recorded grades; and
- Resubmitting a previously written assignment for a new course without the permission of the instructor.

Plagiarism is defined as using another's work (whether printed, electronic, or spoken) without crediting him or her. Whereas cheating is almost always intentional, students sometimes plagiarize accidentally. It is vital, therefore, for students to understand the many different kinds of actions that constitute plagiarism:

- Submitting the whole of another's work as one's own (see the definition of "cheating" above: this includes submitting another student's paper or a paper obtained from a commercial term paper service as one's own);
- Using the exact wording of a source without putting that wording in quotation marks and citing it;
- Paraphrasing the wording of a source without citing it;
- Inadequately paraphrasing the wording of a source (not only the words, but the sentence structure of the original must be changed);
- Summarizing the ideas of a source without citing it; and
- Overusing the ideas of a source, so that those ideas make up the majority of one's work.

From discipline to discipline and course to course, students will find that instructors will sometimes use teaching tools like modeling (in which the student is asked to "model" his or her writing after another's) or collaboration (in which students co-write or share ideas for an assignment) that seem very close to plagiarism. In cases like these, the instructor will be very careful to emphasize that the "use of another's work" is occurring within the specific parameters of the assignment. Such use should not occur in other contexts or without the supervision and consent of an instructor.

Definition of plagiarism influenced in part by the academic honesty policies of Ohlone College, Fremont California and Hamilton College, Clinton New York; by "What is Plagiarism," Turnitin.com Oakland: iParadigms, 2003. 10 Feb. 2004; and by Robert A. Harris, The Plagiarism Handbook (Los Angeles: Pyrczak Publishing, 2001)

## Duplicate Use of Written Work

This form of academic dishonesty includes: multiple students submitting identical or substantially similar work for academic credit or a student submitting identical or substantially similar work to multiple courses without the permission of the instructors.

Faculty members will report suspected instances of academic dishonesty to the Dean of Student Services.

## Harassment/Sexual Harassment

In accordance with Title VII and Title IX of the Education Amendments of 1972, the Chabot-Las Positas Community College District provides a school and working environment free from all forms of harassment, including sexual harassment. The District also maintains an environment in which all students and employees model this behavior and are treated with dignity and respect.

No person shall be subjected to sexual overtures or conduct either verbal, visual or physical, which are intimidating, hostile, offensive, or unwelcome. Such conduct by employees or students is deemed unacceptable behavior and will not be tolerated by the District.

The Board of Trustees considers harassment a serious offense. Violation of this Policy will constitute cause for disciplinary action. Specific disciplinary action shall be related to the severity of the incident, and/or the degree to which repeated incidents have occurred. Such disciplinary actions for employees may include, but are not limited to, verbal warnings, letters of reprimand, suspension with or without pay and dismissal. Such disciplinary actions for students may range from counseling to suspension and/or expulsion.

Las Positas College has designated a responsible officer, outlined procedures for seeking resolution, and developed procedures for filing and processing complaints, including timelines and decision-making authority. Las Positas College has established procedures that provide a person accused of harassment the opportunity to respond to allegations. These procedures ensure adequate communication of the Policy to all students and employees.

Sexual harassment may include, but is not limited to:
I. Sending suggestive or obscene letters, notes, invitations; making derogatory comments, slurs, jokes, epithets, assaults; touching, impeding or blocking movement; leering, gesturing, displaying sexually suggestive objects, pictures or cartoons;
II. Continuing to express sexual interest after being informed that the interest is unwelcome;
III. Implying or withholding support for an appointment, promotion, or change of assignment; suggesting a poor performance report will be prepared; or suggesting probation will be failed; within the educational environment, implying or actually withholding grades earned or deserved; suggesting a poor performance evaluation will be prepared; or suggesting a recommendation or college application will be denied;
IV. Engaging in coercive sexual behavior to control, influence, or affect the career, salary, and/or work environment of another employee; within the educational environment, engaging in coercive
sexual behavior to control, influence, or affect the educational opportunities, grades and/or learning environment of a student;
V. Engaging in offering favors of educational or employment benefits, such as grades or promotions, favorable performance evaluations, favorable assignments, favorable duties or shifts, recommendations, reclassification etc., in exchange for sexual favors.

For general provisions, specific procedures, and inquiries regarding the application of Sexual Harassment Policies contact:

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Dr. Amber Machamer
Director of Research and Planning
925.424.1027
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## Americans with Disabilities Act

In accordance with the 1990 Americans with Disabilities Act (ADA), the Chabot-Las Positas Community College District prohibits discrimination against students and employees with physical or mental disabilities that substantially limit activities such as working, walking, talking, seeing, hearing, or caring for themselves. People who have a record of such impairment, and those regarded as having an impairment, are also protected.

The District ensures that students and employees with disabilities will not be unlawfully subjected to discrimination or excluded from participating in or benefitting from programs, services or activities. Students and employees are accorded due process as outlined in the specific complaint procedures developed by the Colleges. Las Positas College has designated the responsible officer, outlined the process for seeking resolution, and developed the procedures for filing and processing complaints, including timelines for decision-making authority.

Las Positas College has on file, as required by ADA, a Self-Evaluation to ascertain information pertaining to access and accommodations of the instructional programs, services and activities, including plans or alternatives to correct any noted deficiencies.

Las Positas College also has on file a Transition Plan which evaluates accessibility of facilities and delineates timelines for the removal of physical and structural barriers that exist in facilities, programs, and services.

The general provisions and specific procedures related to this policy are available from the Office of the Vice President of Student Services, the Office of Disabled Students Programs and Services and the Counseling Center.

## Section 508 of the Rehabilitation Act

Las Positas College is committed to providing access to its programs and services to all qualified individuals as mandated by Section 508 of the Rehabilitation Act. Students who have disabilities will have access to and use of technology information and services that is comparable to the access and use available to non-disabled students according to Section 508.

For more information, contact the Disability Resource Center at 925.424 .1524 or 925.424 .1510

## Alcohol, Narcotics and Dangerous Drugs

Persons possessing or being under the influence of alcohol, narcotics or dangerous drugs on campus are in violation of state law and College regulations.

## Smoking Policy

In an effort to prevent the serious health risks associated with exposure to smoking and environmental tobacco smoke, faculty, staff, students and visitors at Las Positas College, who choose to use tobacco products, may do so in parking lots and designated areas only. Smoking is not permitted in any College-owned vehicle.

## Drug-Free Workplace

Chabot-Las Positas Community College District is committed to maintaining a drug-free work/learning place in accordance with the requirements of the U.S. Drug-Free Workplace Act of 1988. The District certifies that it will provide a drug-free work/learning place by taking the actions required by the Drug-Free Workplace Act.

It is the intent of the District to make a good faith effort to continue to maintain a drug-free work/learning place through implementation of this policy. For further information, see the Vice President of Student Services.

## Visitors

Visitors to Las Positas College must register with the receptionist in the Administration Building, Building 100. Visits to the classrooms are by permit only. Non-students, including children, must have a permit issued from the Office of the Vice President of Student Services, Building 700. Prior permission from the instructor is required. Permission to enter upon the property of the District, either stated or implied in other policies or practices, is subject to the District policy of time, place and manner.

## Pets

No animals and/or pets of any kind or description are allowed within the boundaries of the College. This restriction also applies to animals and/or pets confined in any vehicle parked within the College boundaries.

This policy does not apply to the use of a guide dog, signal dog, or service dog specially trained for assisting a totally or partially blind person, deaf person, hearing-impaired person, or person with physical disabilities.

## Non-Discrimination Policy

AGE
Las Positas College complies with the Age Discrimination in Employment Act of 1974 which prohibits discrimination in employment on the basis of age.

## DISABILITY

Las Positas College does not discriminate on the basis of disability in admission or access to, or treatment or employment in, its programs and activities. Sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the regulation adopted thereunder prohibit such discrimination.

## RACE, COLOR OR NATIONAL ORIGIN

Las Positas College complies with the requirements of Title VI of the Civil Rights Act of 1964 and the regulations adopted thereunder. No person shall on the grounds of race, color, or national origin be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program of the College. Las Positas College complies with Title VII of the Act, which includes nondiscrimination on the basis of religion and sex. Limited language skills are not a barrier to occupational programs and services of the College.

## GENDER

Las Positas College does not discriminate on the basis of gender in the educational programs or activities it conducts. Title IX of the Educational Amendments of 1972, as amended, and the administrative regulations adopted thereunder prohibit discrimination on the basis of gender in education programs and activities operated by the College. Such programs and activities include admission of students and employment.

## DECLARACIÓN DE NO DISCRIMINACIÓN

Las Positas College, de acuerdo con las leyes civiles, declara que no discrímina hácia ninguna persona a base de su raza, color, nácionalidad, ascendencia, religión, creencia, sexo, edad o incapacidad, en sus programas y políticas de empleo y educación. El conocimiento limitado del idioma no limita acceso a programas y servicios ocupacionales. Cualquier pregunta sobre la aplicación de esta declaración puede dirigirse a Sylvia Rodriguez, Assistant Dean of Admissions and Records, teléfono 925.424-1524; / 925-424-1510 o al Regional Director of the Office of Civil Rights, Old Federal Building, 50 United Nations Plaza, Room 239, San Francisco, CA 94102, teléfono 415.437.7700.

## Privacy Rights of Students

Each student and alumnus of Las Positas College has a right to (1) review the official educational records, files, documents, and other materials that contain information directly related to him or her; and (2) challenge such records that are inaccurate, misleading, or otherwise inappropriate.

It is also the policy of the College that, unless excluded by state or federal law, no record, files, documents, materials, or personally identifiable information contained therein shall be released to any individual, agency, or organization without the express written consent of the student.

Any student desiring to review his or her official educational records should contact the Office of the Assistant Dean of Admissions and Records, to determine procedures for such review.

Any student desiring to challenge the content of his or her official educational records should contact the Office of the Vice President of Student Services.

While the College does not provide general directory services, it may (by law under special circumstances) release the following information about a student: name, address, telephone number, date and place of birth, major field of study, class schedule, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degree and awards received, and the most recent previous public or private school of attendance. Any student who does not wish such information to be released about his/her participation or status should notify the Admissions and Records Office in writing at the beginning of each semester or session of attendance.

For further details, refer to the brochure titled "Student's Rights, Duties and Responsibilities," that is available in Building 700.

## Posting of Materials

The Vice President of Student Services or Division Deans must approve posting of fliers and posters.

Only posters related to activities, events or classes sponsored by Las Positas College or Chabot College will be approved for general display. Other announcements will be considered for approval for posting in the Student Center, Building 1700, only.

## Academic Standards

It is the policy of the Las Positas College Academic Senate that all academic courses be taught at a post-secondary level, particularly courses for which Las Positas College has articulation agreements with four-year institutions. When a course is articulated, it assures that students completing the course have attained certain levels of academic skill and knowledge comparable with the equivalent course at a four-year institution.

It is understood that students enter Las Positas College with varying levels of scholarship and achievement. Because of this, some students will need to take extra measures (tutoring, basic skills work, etc.) to master their college coursework. It is the student's responsibility to take appropriate action to ensure his/her success; faculty are not expected to alter course content below the college-level so that students enrolled in the class will pass. Course content and objectives are reflected in the course outline on file with the Office of Academic Services, 100B, and are based on the academic foundation students are expected to have upon entering the course..

## Faculty Office Hours

All members of the full-time faculty schedule office hours each week. This schedule is posted outside each instructor's office. Students are encouraged to take advantage of this opportunity, the benefits of which include:

- Assistance in understanding and achieving specific course expectations
- Development of concepts and understanding beyond the course expectations
- Insight into career opportunities within the instructor's area of expertise
- Encouragement, assistance, and direction in meeting both educational and personal needs
- Continuing association with a member of the academic community.


## Attendance Requirements

It is assumed that each student will consider class attendance an absolute requirement. It is the student's responsibility to attend every class the scheduled length of time. Excessive absences, tardiness, and leaving class early may be taken into consideration by instructors in assigning grades.

## Excessive Absence

A student absent for a total of four consecutive, or six cumulative, instructional hours and/or two consecutive weeks of instruction may be dropped from that class by the instructor. This action constitutes an official termination of class enrollment and will be recorded as specified on Catalog, page 13.

## Reporting Absence

Absences should be cleared personally with instructors. Messages may be left directly on the instructor's voice-mail.

## Examinations and Evaluations

Students will be expected to take examinations and to complete and submit reports and/or projects. The instructor will determine the scheduling of exams and due dates of reports and projects. Unless the student and instructor have made prior arrangements, the instructor is under no obligation to reschedule missed exams or to extend deadlines for reports and/or projects.

## Removal of Disruptive Students

Instructors may remove disruptive students from the classroom for the duration of a class period (Governing Board Policy No. 5512), but may not terminate their enrollment for disciplinary reasons. The Vice President of Student Services or designee may recommend suspension of a student for due cause. Only the Board of Trustees can expel a student from the College.

## Use of Electronic Recorders

Students are not permitted to make recordings in class or in any campus meetings without the approval of the instructors involved. Exceptions shall be made for students with disabilities who have permission from Disabled Student Programs and Services.

## Grades

Grades are a means of communicating student achievement within courses of instruction. College grades are defined as follows:

| GRADE | MEANING | GRADE VALUE |
| :---: | :---: | :---: |
| A | Excellent | 4 grade points per unit |
| B | Above Average | 3 grade points per unit |
| C | Average | 2 grade points per unit |
| D | Barely Passing | 1 grade point per unit |
| F | Failure | 0 grade points/units attempted with no units earned. May negatively affect progress, See page 32. |
| P | Pass | 0 grade points/units earned with no units attempted. |
| N | No Pass | 0 grade points/no units earned and no units attempted. May negatively affect progress, See page 32. |
| 1 | Incomplete | 0 grade points/no units earned and no units attempted. May negatively affect progress, See page 32. |

## Pass/No Pass Grades

(UNIT LIMITATIONS MAY EXIST AT TRANSFER INSTITUTIONS)
In accordance with the Education Code and the Administrative Code, Las Positas College has established a grading policy which adds the " P " (pass) and " N " (no pass) grades to the standard letter grades (A, B, $C, D, F)$ used in colleges and universities. Courses in which a " $P$ " (pass) grade is earned will apply toward the 60 units required for graduation, but will not affect the student's grade point average. A maximum of 12 units of "P" (pass) may be attempted and applied toward the Associate in Arts or Associate in Science Degree.
(Additional units may be applied provided the student secures prior approval of the division of Dean of Counseling.) A course in which a " $N$ " (no pass) grade is earned will not apply toward graduation and will not affect the student's grade point average. An excess of number of " N " (no pass) grades will affect the student's academic progress ratio, resulting in a low figure.

Offering courses for pass/no pass grades provides the student with the opportunity to explore areas outside his/her current interest field without undue concern for his/her grade point average. This policy allows the student to take coursework outside his/her major without the fear of a substandard grade, namely a "D" or "F." Students are expected to complete the course and comply with College attendance requirements and other expectancies of the course. Should they fail to do so, their enrollment in the class may be terminated; and the work may be graded on the basis of a standard letter grade.

LAS POSITAS COLLEGE OFFERS:

1. Some courses solely for a pass/no pass ( P or N ) grade.
2. Some courses solely for a standard letter grade.
3. Some courses in which the student may choose to complete the course for either a pass/no pass grade OR for a standard letter grade.

On or before the last day of the fifth week of the semester, the student shall inform the Admis-sions and Records Office, by petition, of his/her intention to complete a course for a pass/no pass grade and the instructor shall report to the Dean of Enrollment Services a final grade of " P " (pass) or " N " (no pass) for students who so petition. The student's decision to opt for pass/no pass grade may not be reversed by either the student or the instructor at a later date.

The " $P$ " (pass) grade will be given to indicate completion of a course with "C" or better work.

A student may repeat a course in which a grade of " $D$," " $F$ " or " $N$ " (no pass) is earned.

## Administrative Symbols "IP", "RD" and " 1 "

ADMINISTRATIVE SYMBOL "IP" IN PROGRESS
The administrative symbol "IP" is established to indicate coursework "in progress." The symbol "IP" is not a grade; therefore, it has no value in calculating unit credit or grade point average. The required coursework to remove the "IP" must be completed by the end of the term following the date the "IP" was granted. If a student is assigned an "IP" at the end of a term and does not complete that course during the subsequent term, the appropriate faculty member will assign an evaluative symbol (grade) to be recorded on the student's permanent record.

## ADMINISTRATIVE SYMBOL "RD", REPORT DELAYED

Only the Assistant Dean of Admissions and Records can assign the administrative symbol "RD". It is to be used when there is a delay in reporting a grade due to extenuating circumstances. It is a temporary notation to be replaced by a permanent grade/symbol, as soon as possible. "RD" shall not be used in calculating grade point averages.

## ADMINISTRATIVE SYMBOL "I", INCOMPLETE

Incomplete academic work for unforeseeable emergency and justifiable reasons at the end of the term may result in an " " symbol being entered by the instructor on the student's permanent record. The student may complete the course work by the end of the following term or semester and receive an appropriate letter grade. If the student does not complete the course work before this deadline, the right of the student to make up the work is forfeited. The student may petition to extend the deadline date because of extenuating circumstances, but this will
require the approval of the Assistant Dean of Admissions and Records of Las Positas College, or designee, and the instructor of record. The "l" will be replaced with the alternate letter grade assigned by the instructor at the time the incomplete was assigned.

A "grade change card" will contain the following documentation and shall be maintained by the Assistant Dean of Admissions and Records.

- The condition(s) stated by the instructor for removal of the " 1 ";
- The letter grade to be assigned if the work has not been completed within the designated time limit;
- The letter grade assigned when the stipulated work has been completed; and
- The signature of the student.
- The "l" symbol shall not be used in calculating units attempted or for grade points.


## Academic Grade Point Average

The Academic Grade Point Average (GPA) is an index of the quality of a student's work.

To enable the calculation of the GPA, eligibility for honors and recognition, and other scholastic status, letter grades are converted to numerical form using the grade value as previously defined.

Grades earned in non-degree applicable courses (numbered 100-299) will not be used when calculating a student's degree applicable grade point average. Courses below the English 1A requirement are not degree applicable.

The GPA is calculated by dividing total grade points by total units attempted. Points are determined as follows:

## Grade Points

$A=4$ points per unit
$B=3$ points per unit
$C=2$ points per unit
$D=1$ points per unit
F = 0 points per unit

## Example

| HISTORY 1 | 3 units $\times 3$ grade points $(B)=09$ grade points |
| :--- | :--- |
| MATH 1 | 5 units $\times 2$ grade points $(C)=10$ grade points |
| P.E. 1 | .5 unit $\times 4$ grade points $(A)=02$ grade points |
| TOTAL | 8.5 units $=21$ grade points |
|  | 21 DIVIDED BY $8.5=2.47$ OR C |

## Scholastic Honors

Students who complete at least 6 units of work each semester with grades yielding a semester GPA of 3.25 or better are recognized for academic distinction by placement on the Academic Honors List and by a notation on the semester grade report and transcript.

Students who graduate with "Highest Honors" (GPA of 3.50 or better) and those who graduate with "Honors" (GPA of 3.25 or better) are recognized at graduation.

The Sigma Theta Chapter of Alpha Gamma Sigma (AGS) is a California Community College Honor Scholarship Society that recognizes academic achievement. Membership eligibility and other information are available or through the AGS advisor.

## Grade Change Deadline Period

Awarding grades to students is the responsibility of the instructor of the course in which the student is registered. The determination of the student's grade by the instructor shall be final in the absence of mistake, fraud, bad faith, or incompetence.

When a student believes that an error has been made in the assignment of a grade, he or she should discuss the problem with the instructor. To correct an erroneous grade, a special "Request for Grade Change" form must be completed and presented to the Office of Admissions and Records by the instructor. The Office of Admissions and Records will forward the form to the Dean of Enrollment Services.

Requests for a grade change must be made during the semester immediately following the semester/session for which the grade was assigned. Responsibility for monitoring personal academic records rests with the student.

Grade changes will not be made after the established deadline except in cases with extenuating circumstances. These are acute medical, family or other personal problems that cause the student to be unable to meet the deadline. Requests for a grade change under this exception shall be made to the Dean of Enrollment Services (or designee) who may, upon verification of the circumstance(s), authorize the initiation of a grade change to "NGR" or "W". The student must present evidence of the extenuating circumstance(s).

Original copies of the instructor grade reports will be retired to microfilm after a five-year retention period. Grade changes shall not be made after that time.

## Academic Renewal

Academic Renewal, in accordance with the California Education Code Sections 55764 and 55765 , is a process that permits the alleviation of substandard (D's, F's) academic coursework not reflective of the student's current scholastic ability. Grades alleviated by this process will be disregarded in computing the student's grade point average. Only courses taken at the Chabot-Las Positas Community College District will apply. Work completed at other institutions may be considered for graduation eligibility only.

For students to be eligible for academic renewal they must be currently enrolled at Chabot and/or Las Positas College, and a period of at least two (2) years must have elapsed since completion of the coursework to be disregarded. The student may petition the Assistant Dean of Admissions and Records at Las Positas College or the Director of Admissions and Records at Chabot College for academic renewal upon completion of the following:

- A minimum of 12 units taken consecutively at Las Positas and/or Chabot with a grade point average of 2.5 or better; or
- A minimum of 20 units with at least a 2.0 grade point average.

Upon approval, the student's permanent record shall be annotated in such a manner that all courses disregarded shall remain legible on the transcript, indicating a true and accurate history of the student's record.

Students may petition for academic renewal only once. Once the academic renewal process has been completed, it cannot be reversed. A maximum of 24 units of work may be renewed.

Academic renewal at Chabot and Las Positas College does not guarantee that other colleges will accept this action. Acceptance of academic renewal is at the discretion of the receiving institution.

## Catalog Requirements and Continuous Attendance

A student in continuous attendance in regular semesters may, for the purpose of meeting degree or certificate requirements, elect to meet the requirements in effect at any time during their period of continuous attendance at the Chabot-Las Positas Community College District.

Graduation requirements are listed in the Catalog. If a break in attendance occurs before graduation requirements have been met, the graduation requirements that apply to the student are those listed in the Catalog in force at the time continuous studies are resumed.

Continuous attendance is defined as enrollment in at least one semester during the academic year excluding summer session. Any academic record symbol (A-F, P/N, I, IP, RD, W) shall constitute enrollment. A student who drops out for one academic year or more is considered to be a returning student.

The Las Positas College Catalog Requirements and Continuous Attendance Policy do not necessarily apply to requirements in effect at transfer institutions. Courses applicable toward major and general education requirements may change. Students who are planning to transfer are advised to consult the catalog of the university to which they will transfer.

## Notice of Unsatisfactory Work (Early Alert)

Instructors may notify students of unsatisfactory work at any time during the semester. Such notices are given to the student in person or mailed to the student at his/her home address. Excessive absences, academic deficiency, and failure to submit assignments constitute reasons for notices of unsatisfactory work. A student who receives such notices, or any student who experiences difficulty with academic achievement, is encouraged to consult with his/her instructor and counselor for assistance.

## Scholastic Standards

The Academic Standards Policy of Las Positas College is established to assist students in making appropriate educational plans. There are two indices to academic standards: Academic Status and Academic Progress.

## Academic Probation and Dismissal

A student who has attempted at least 12 semester units of college courses and has a cumulative grade point average of less than 2.0 will be placed on Academic Probation I.

A student on Academic Probation I who does not raise his/her cumulative grade point average to 2.0 or higher in the following semester will be placed on Academic Probation II.

Veterans lose certification for Veterans Benefits after two semesters of academic probation; refer to the Office of Veterans Affairs, Building 1300.

A student on Academic Probation II who does not raise his/her cumulative grade point average to a 2.0 or higher in the following semester of attendance will be dismissed. The first time a student is dismissed, he or she may apply for readmission after one semester, summer session not included, of non-attendance. In the case of a second dismissal, the student may apply for readmission after 5 years of non-attendance or upon appeal to the Vice President of Student Services. Summer session does not count as a semester in determining academic status.

## Removal of Poor Academic Status

Once a student on academic probation raises his or her overall (cumulative) grade point average to a 2.0 ("C") or higher, s/he will be taken off Academic Probation status and will become a "student in good standing."

## Progress Probation and Dismissal

Progress Probation is determined by the percentage of cumulative units with grades of W, N, or I (Poor Progress Grades). A student who has attempted 12 cumulative semester units of College course work will be placed on Progress Probation I if $50 \%$ or more of the cumulative units attempted resulted in Poor Progress grades.

A student on Progress Probation I who does not reduce his/her percentage of cumulative poor progress units to below $50 \%$ will be placed on Progress Probation II.

If a student on Progress Probation II continues to have 50\% or more of his/her cumulative units made up of Poor Progress grades in the following semester, $s / h e$ will be dismissed. The first time a student is dismissed he or she may apply for readmission after one semester (summer session not included) of non-attendance. In the case of a second dismissal, the student may apply for readmission after 5 years of non-attendance or upon appeal to the Vice President of Student Services. Summer session does not count as a semester in determining progress status.

## Removal of Poor Progress Status

In order to reverse poor progress status and become a student in good standing, a student must reduce the cumulative units of $\mathrm{W}, \mathrm{N}$ or I grades to less than $50 \%$ of his/her total units attempted. Summer session does not count as a semester in determining progress status.

## Appeal Process

Under extenuating circumstances beyond the student's control or ability to foresee, exceptions to these policies are granted by the Vice President of Student Services or designee. Students should see a counselor to discuss their progress or academic status and for details associated with the academic standards policy.

## Credit-by-Examination (Individual Student Application)

Chabot-Las Positas Community College District supports the general proposition that the full value of classroom learning experience cannot be measured by any examination. Students who have achieved elsewhere an equivalent knowledge, understanding and experience to that required by regular college courses may receive units of credit based on successful completion of a comprehensive and searching course examination approved by the College discipline faculty. Students may apply individually for Credit-by-Examination for any course offered in the Catalog. In addition, the Credit-by-Examination process may also be used to provide credit for completion of certain coursework at the high school level, where deemed appropriate by the majority of faculty in the discipline. (See High School Articulation, Catalog page 21.)
I. ELIGIBILITY

Any student applying for Credit-by-Examination will be expected to have had extensive experiences which have prepared the person in the subject matter and for which the individual can provide acceptable evidence of those experiences at the time of application. The student must be registered at the College and in good academic standing.
II. APPLICATION AND ADMINISTRATION

A student may apply for Credit-by-Examination through the petition process for courses listed in the Catalog. The petition must be approved by the appropriate discipline faculty and by the Division Dean. Applicable fees/and or tuition must be paid at the Office of Admissions and Records. Arrangements for completing the examination and the actual administration will be made between the student and the instructor after the petition is approved. The examination itself may take a variety of forms, including written, oral, demonstration or a combination of methods.

## III. AWARDING OF CREDIT

Upon completion of the examination, the administering instructor will verify the course and number of units to be received and will assign an appropriate grade. Students shall be offered a credit/ no-credit option if that option is normally available for the course. The student must achieve a grade of " $C$ " or better to be awarded credit under CBE policy.

## IV. LIMITATIONS

Credit-by-Examination coursework may not be counted as part of the 12-unit residency requirement necessary for graduation from the College. The amount of credit which may be earned and counted toward graduation at the College is normally limited to 10 semester units. Under certain circumstances, advanced placement credit may be awarded to a diploma graduate in nursing which may include up to 30 semester units (one year) of academic credit.

## Advanced Placement Examinations

Las Positas College grants academic credit for successful completion of examinations of the Advanced Placement (AP) Program of the College Entrance Examination Board (C.E.E.B.). Credit awarded based on passing AP scores ( 3,4 , or 5 ) may be applied differently for the AA/AS degree and for transfer; therefore, students are advised to consult with a counselor for information on how their AP scores will be applied based on their educational goals. Courses deemed equivalent to AP exams as determined by LPC faculty (see chart on pages 33-34) may be used to clear pre-requisites as appropriate - see a counselor for details. Students may not receive duplicate credit for AP exams and the equivalent courses taken at the college.
The AP Chart on pages 33-34 displays how credit is awarded for the following:

- Las Positas College AA/AS degree - units and course equivalency
- CSU General Education Breadth pattern and units toward CSU transfer admission
- IGETC (Intersegmental General Education Transfer Curriculum) GE pattern for CSU and/or UC

In order to receive academic credit toward the AA/AS degree and/ or CSU GE Breadth/IGETC certification for AP exams, students must submit the official AP score report from the C.E.E.B. to the Admissions and Records Office and request the score report to be scanned into their student records. The scanning request may be initiated by meeting with a counselor (Counseling Office, Building 700). In cases where the AP exams are not listed on the AP Chart or do not earn credit, students may petition the academic discipline for consideration of credit.

## ACADEMIC REGULATIONS

## CREDIT FOR ADVANCED PLACEMENT (AP) EXAMINATIONS

Credit may be earned for the College Entrance Examination Board (CEEB) Advanced Placement (AP) Exams with scores of 3, 4, or 5 as listed below.
Course credit and units granted at Las Positas College may differ from course credit and units granted by a transfer institution.

| EXAMAMINATION TITLE | LPC AA (MAJOR AND/OR GE) | CSU GE | CSU <br> UNITS EARNED TOWARD TRANSFER | IGETC | UC UNITS EARNED Toward transfer |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Art: History | Art 4 and 5 6 semester units | Area Cl or C2 <br> 3 semester units | 6 semester units | Area 3A or 3B 3 semester units | 8 quarter/5.3 semester units |
| Art: Studio | Credit for the major may be granted upon petition to the Art Dept. and portfolio review: ART 2A, 10, or <br> 11, 3-6 semester units | N/A | 3 semester units | N/A | 8 quarter/5.3 semester units |
| Biology | Biology 31 <br> 4 semester units | Area B2 and B3 (lab) 4 semester units | 6 semester units | Area 5B (with lab) 4 semester units | 8 quarter/5.3 semester units |
| Calculus AB | Math 1 <br> 5 semester units | Area B4 3 semester units | 3 semester units* | Area 2 <br> 3 semester units | 4 quarter/2.7 semester units** |
| Calculus BC | Math 1 and 2 <br> 10 semester units | Area B4 3 semester units | 6 semester units* | Area 2 <br> 3 semester units | 8 quarter/5.3 semester units** |
| AP CALCULUS EXAM LIMITATIONS: <br> *Maximum one Calculus exam toward transfer for CSU <br> ${ }^{* *}$ Maximum credit 8 quarter/ 5.3 semester units for both Calculus exams for UC |  |  |  |  |  |
| Chemistry | Chemistry 1A 5 semester units | Areas Bl and B3 (lab) 4 semester units | 6 semester units | Area 5A (with lab) 4 semester units | 8 quarter/5.3 semester units |
| Chinese Language \& Culture | N/A | Area C2 <br> 3 semester units | 6 semester units | Area 3B and 6 3 semester units | 8 quarter/5.3 semester units |
| Computer Science A | N/A | N/A | 3 semester units* | N/A | 2 quarter/1.3 semester units** |
| Computer Science AB | N/A | N/A | 6 semester units* | N/A | 4 quarter/2.7 semester units** |
| AP CS EXAM LIMITATIONS <br> *Maximum one CS exam toward transfer for CSU <br> ${ }^{* *}$ Maximum 4 quarter/2.7 semester units for both CS exams for UC |  |  |  |  |  |
| Economics - Macroeconomics | N/A | Area D2 <br> 3 semester units | 3 semester units | Area 4B <br> 3 semester units | 4 quarter/2.7 semester units |
| Economics - Microeconomics | N/A | Area D2 <br> 3 semester units | 3 semester units | Area 4B <br> 3 semester units | 4 quarter/2.7 semester units |
| English - Language \& Composition | English 1A 3 semester units | Area A2 <br> 3 semester units | 6 semester units | Area 1A <br> 3 semester units | 8 quarter/5.3 semester units* |
| English - Literature \& Composition | English 1 A and 3 6 semester units | Area 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 * quarter/5.3 semester units maximum for both English exams for UC |  |  |  |  |  |
| Environmental Science | N/A | Area B2 and B3 (if taken prior to Fall 2009) or Area B1 and B3 (regardless of when taken) 4 semester units | 4 semester units | Area 5 A (with lab) 3 semester units | 4 quarter/2.7 semester units |
| French Language | French 1 A and 1 B 10 semester units | Area C2 <br> 3 semester units | 6 semester units | Area 3B and 6 3 semester units | 8 quarter/5.3 semester units |
| French Literature | N/A | Area C2 (if taken prior to Fall 2009) 3 semester units | 6 semester units | Area 3B and 6 3 semester units | 8 quarter/5.3 semester units |
| German Language | N/A | Area C2 <br> 3 semester units | 6 semester units | Area 3B and 6 3 semester units | 8 quarter/5.3 semester units |
| Government \& Politics Comparative | N/A | Area D8 <br> 3 semester units | 3 semester units | Area 4H <br> 3 semester units | 4 quarter/2.7 semester units |
| Government and Politics - U.S. | Political Science 7 <br> 4 semester units | Area D8 and US-2* <br> 3 semester units | 3 semester units | Area 4H <br> 3 semester units | 4 quarter/2.7 semester units |
| AMERICAN INSTITUTIONS <br> *Fulfills content area US-2 for American Institutions requirement |  |  |  |  |  |

## ACADEMIC REGULATIONS

CREDIT FOR ADVANCED PLACEMENT (AP) EXAMINATIONS (continued)

| EXAMAMINATION TITLE | LPC AA (MAJOR AND/OR GE) | CSU GE | CSU UNITS EARNED TOWARDS TRANSFER | IGETC | UC UNITS EARNED TOWARD TRANSFER |
| :---: | :---: | :---: | :---: | :---: | :---: |
| History - European | History 2 <br> 3 semester 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. | History 7 and 8 6 semester units | Area C2 or D6 + US-1* 3 semester units | 6 semester units | Area 3B or 4F 3 semester units | 8 quarter/5.3 semester units |
| AMERICAN INSTITUTIONS *Exam + POLI 7 fulfills American Institutions requirement |  |  |  |  |  |
| History - World | N/A | 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 | N/A | Area D5 <br> 3 semester units | 3 semester units | Area 4E <br> 3 semester units | 4 quarter/2.7 semester units |
| Italian Language \& Culture | N/A | Area C2 (if taken prior to Fall 2010) <br> 3 semester units | 6 semester units | Area $3 B$ and 6 3 semester units | 8 quarter/5.3 semester units |
| Japanese Language \& Culture | N/A | Area C2 <br> 3 semester units | 6 semester units | Area 3B and 6 3 semester units | 8 quarter/5.3 semester units |
| Latin - Vergil | N/A | Area C2 <br> 3 semester units | 3 semester units | Area 3B and 6 3 semester units | 4 quarter/2.7 semester units |
| Latin - Literature | N/A | Area C2 (if taken prior to Fall 2009) <br> 3 semester units | 6 semester units | Area 3B and 6 3 semester units | 4 quarter/2.7 semester units |
| Music: Listening \& Literature | MUS 1 <br> 3 semester units | N/A | N/A | N/A | N/A |
| Music Theory | N/A | Area Cl (if taken prior to Fall 2009) 3 semester units | 6 semester units | N/A | 8 quarter $/ 5.3$ semester units |
| Physics B | Physics 2A <br> 4 semester units | B1 and B3 (lab) 4 semester units* | 6 semester units* | Area 5A (with lab) 4 semester units | 8 quarter/5.3 semester units** |
| Physics C - Elect/Magnetism | Physics 8B 5 semester units | Area B1 and B3 (lab) 4 semester units* | 4 semester units* | Area 5A (with lab) 3 semester units | 4 quarter/2.7 semester units** |
| Physics C-Mechanics | Physics 8A 5 semester units | Area Bl and B3 (lab) 4 semester units* | 4 semester units* | Area 5A (with lab) 3 semester units | 4 quarter/2.7 semester units** |

## AP PHYSICS EXAM LIMITATIONS <br> *Maximum 4 semester units toward GE and 6 semester units toward transfer for all Physics AP exams passed for CSU <br> **Maximum 8 quarter/ 5.3 semester units for all 3 Physics exams for UC

| Psychology | N/A | Area D9 <br> 3 semester units | 3 semester units | Area 41 <br> 3 semester units | 4 quarter/2.7 semester units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Spanish Language | Spanish 1A and 1B <br> 10 semester units | Area C2 <br> 3 semester units | 6 semester units | Area 3B and 6 <br> 3 semester units | 8 quarter/5.3 semester units |
| Spanish Literature | N/A | Area C2 <br> 3 semester units | 6 semester units | Area 3B and 6 <br> 3 semester units | 8 quarter/5.3 semester units |
| Statistics | Math 42A <br> 3 semester units | Area B4 <br> 3 semester units | 3 semester units | Area 2 <br> 3 semester units | 4 quarter/2.7 semester units |

## ACADEMIC REGULATIONS

## INTERNATIONAL BACCALAUREATE (IB) EXAMS

The chart below lists how International Baccalaureate (IB) exams may be applied toward the California State University General Education (CSU GE) pattern and Intersegmental General Education Transfer Curriculum (IGETC).The GE areas referenced in the chart may be found on pages 43-45.
CSU GE: 3 semester units are applied toward CSU GE certification if exams are passed with required scores indicated below.
IGETC: To earn credit toward IGETC \& UC transfer, a score of 5, 6, or 7 on Higher Level exam is required. 3 semester units are applied toward IGETC certification. Students who have earned credit from an IB exam should not take a comparable college course because transfer credit will not be granted for both.

| INTERNATIONAL BACCALAUREATE (IB) EXAM | CSU GE + SCORE REQUIRED | SEM UNITS TOWARD CSU TRANSFER | IGETC <br> (SCORE OF 5, 6, OR 7) | SEM UNITS TOWARD UC TRANSFER |
| :---: | :---: | :---: | :---: | :---: |
| IB Biology HL | B2 $\text { Score }=5$ | 6 | 5 B (without lab) | 5.3 |
| IB Chemistry HL | B1 Score $=5$ | 6 | 5A (without lab) | 5.3 |
| IB Economics HL | D2 $\text { Score }=5$ | 6 | 4B | 5.3 |
| IB Geography HL | $\begin{aligned} & \text { D5 } \\ & \text { Score = } \end{aligned}$ | 6 | 4E | 5.3 |
| IB History (any region) HL | $\begin{aligned} & \text { C2 or D6 } \\ & \text { Score }=5 \end{aligned}$ | 6 | 3B or 4F | 5.3 |
| IB Language Al HL | C2 <br> Score $=4$ <br> (any language) | 6 | $3 B$ (any language) <br> 3 B and 6A (any language except English) | 5.3 |
| IB Language A2 HL | C2 <br> Score $=4$ <br> (any language) | 6 | $3 B$ (any language) <br> 3 B and 6A (any language except English) | 5.3 |
| IB Language B (any language) HL* | N/A | 6 | 6A | 5.3 |
| IB Mathematics HL | B4 Score $=4$ | 6 | 2A | 5.3 |
| IB Physics HL | B1 Score $=5$ | 6 | 5A (without lab) | 5.3 |
| IB Psychology HL | $\begin{aligned} & \text { D9 } \\ & \text { Score }=5 \end{aligned}$ | 3 | 41 | 5.3 |
| IB Theatre HL | $\begin{aligned} & \mathrm{Cl} \\ & \text { Score }=4 \end{aligned}$ | 6 | 3A | 5.3 |
| *The IB curriculum offers language at various levels for native and non-native speakers. Language B courses are offered at the intermediate level for non-natives. Language $A$ and $A 2$ are advanced courses in literature for native and non-native speakers, respectively. |  |  |  |  |

## DEGREES AND CERTIFICATES

Las Positas College is authorized by the Board of Governors of the California Community Colleges to confer the Associate in Arts Degree, Associate in Science Degree, and Certificate of Achievement upon students who complete the necessary requirements.

## Associate Degrees

The Associate in Arts (AA) and Associate in Science (AS) Degrees offered by Las Positas College include Transfer Programs and Occupational Programs. Within each AA and AS Degree, there is a required general education component (see General Education Requirements, pages 38-39). General Education courses are grouped into several broad areas and are designed to cultivate intellect and imagination and to broaden awareness of the relationship and interdependence of ideas and disciplines.

## Associate in Arts Degree

The Associate in Arts Degree is conferred upon those students who complete the minimum of 60 semester units with a grade-point average of 2.0 or better and meet the graduation requirements as set forth on page 38.

## Associate in Science Degree

The Associate in Science Degree is conferred upon those students who complete the minimum of 60 semester units with a grade-point average of 2.0 or better and meet the graduation requirements as set forth on page 39.

## Transfer with an Associate Degree

Las Positas College provides the freshman and sophomore years of a four-year college or university program. Students intending to transfer to four-year colleges and universities may complete lower division general education requirements and major field preparatory courses at Las Positas College. Students may also earn an associate degree while preparing for transfer. Meet with a counselor to develop an individualized plan.

## AA/AS Occupational Programs

The courses of study within these programs prepare for direct job entry, and can normally be completed in a two-year period by a fulltime student (carrying at least 15 units per semester). For a list of AA/ AS Programs see page 47. Students may also develop with a counselor an Individual Occupational Major which must be approved by the Dean of Student Services.

## DEGREE REQUIREMENTS

## Associate in Arts and Associate in Science

A student is eligible for graduation with the Associate in Arts Degree and the Associate in Science Degree after satisfactorily completing:

- The minimum of 60 degree applicable, semester units ( 12 of which must be completed in residence at Las Positas College) with a gradepoint average of 2.0 or higher;
- All requirements for the major plus electives to total 60 semester units (of these at least 18 must be in the major per Title V CCR.T5 55806);

The General Education Requirements for the Associate in Arts Degree, see page 38, or the General Education Requirements for the Associate in Science Degree, see Catalog, page 39.

Official transcripts from other colleges must be submitted to the Office of Admissions and Records. For coursework to be considered in meeting graduation requirements at Las Positas College. For graduation purposes only, total attempted and completed units transferred from other colleges will be included in determining a student's overall cumulative grade-point average (GPA).

## General Education Reciprocity Program with Community Colleges

The Chabot-Las Positas Community College District has entered into a mutual agreement with eight other local community colleges to accept the General Education and graduation proficiency of these colleges as completed for Chabot College and Las Positas College. The other participating colleges are:

DeAnza College (Cupertino), Evergreen Valley College (San Jose), Foothill College (Los Altos Hills), Gavilan College (Gilroy), Mission College (Santa Clara), Ohlone College (Fremont), San Jose City College (San Jose), West Valley College (Saratoga).

Effective Fall 2007, students who obtain an official General Education Reciprocity Program Certification (which verifies completion of Associate Degree General Education and graduation proficiency) or complete an associate degree at any one of the participating colleges will have both their General Education course work and graduation proficiency accepted as completing Chabot College's and Las Positas College's General Education and graduation proficiency for the Associate of Arts and/or the Associate of Science Degree.

No additional general education course work will be required if the certification is officially presented. Students will still be required to complete all courses and prerequisites needed for a major. The agreement also means that the other participating colleges will accept the General Education and graduation proficiency pattern of Chabot College and Las Positas College if an official General Education Reciprocity Program Certification is presented at any of the member colleges. Students must request certification in the Counseling Office in. This agreement will be reviewed periodically.

## DEGREES AND CERTIFICATES

## Certificate of Achievement

The courses of study within these programs prepare for direct job entry. Many certificate programs can be completed in one year in daytime classes, while others are designed to be completed over a longer period in evening classes. Students are advised to consult a counselor for more information about time frames for completion of certificate programs. For a list of Certificate Programs see page 47 Students may also develop an Individual Occupational Major with a counselor, for approval by the Dean of Student Services.

The Certificate of Achievement is awarded upon successful completion of required courses for the certificate with a gradepoint average of 2.0 or higher.

A student must complete at least eighty percent (80\%) of the required program at Las Positas College or Chabot College, including the last three (3) units. Grades earned in non-degree applicable courses (numbered 100-200) will not be used in calculating a student's degree applicable grade point average. No courses below the English 1A requirement are degree applicable.

## Career Certificate

These certificates are not transcripted. This group of courses provides industry-based professional development. Individual courses will appear on transcript. For a list of Career Programs see page 47. See a counselor for further information.

## Petition to Graduate

- At least one semester before the scheduled graduation ceremony, students should schedule an appointment with a counselor to check their progress in fulfilling the graduation requirements and arrange to complete the appropriate application for graduation.
- All transcripts from other colleges must be submitted to the Office of Admissions and Records before a graduation evaluation can be made.

Students may receive degrees or certificates at the end of any semester or the end of summer session. Students should petition no later than the tenth instructional week of the semester in which they plan to complete the requirements. Deadline dates are listed in the College Calendar (printed in the Class Schedule)."Petition to Graduate" forms are available at the Office of Admissions and Records,

Commencement Exercises are held in late May or early June. All students receiving degrees and/or certificates are cordially invited to participate.

## DEGREES AND CERTIFICATES

# Las Positas College General Education Pattern for Associate in Arts Degree <br> 2010-2011 (Effective Fall 2010) 

| USE THE BOXES ON THE RIGHT | N= NEED | IP=IN PROGRESS | C=COMPLETED | N | IP | C |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LANGUAGE AND RATIONALITY <br> ENGLISH COMPOSITION Complete $\mathbf{1}$ course from below with a grade of ' $C$ ' or higher or ' $P$ ' |  |  |  |  |  |  |
| English 1A, 3 |  |  |  |  |  |  |
| WRITING AND CRITICAL THINKING Complete 1 course from below 3 UNITS |  |  |  |  |  |  |
| English 4, 7 |  |  |  |  |  |  |
| COMMUNICATION AND ANALYTICAL THINKING Complete 1 course from below 3 UNITS |  |  |  |  |  |  |
| American Sign Language 1A, 1B <br> Business 52, 55 <br> CIS 50, 80 <br> Computer Science 1 | Electronics Technology 50 Foreign Language $1 \mathrm{~A}, \mathrm{IB}$ Industrial Technology 74 Mass Communications 1, 32 | Mathemat <br> 41, 42A, 44 <br> 55Y,57, 65, <br> Speech 1, 2 <br> Theater Ar | $\begin{aligned} & s 1,2,10,20,33,34,38, \\ & 45,55,55 A, 55 B, 55 X, \\ & 5 B, 65 Y, 71 \\ & , 10,46 \\ & 53,25 \end{aligned}$ |  |  |  |
| MATHEMATICS Proficiency in Mathematics may be met in one of the ways specified below |  |  |  |  |  |  |
| - Demonstrate eligibility for one level above intermediate algebra or higher using multiple measures such as the LPC Placement Examination and previous course work; or <br> - Submit documentation that a course equivalent to one of the mathematics courses listed below has been completed (with a grade of " C " or higher or " P ") at another college/university; or <br> - Complete one of the following courses (with a grade of " C " or higher or " P "): Mathematics 1, 2, 3, 5, 7, 10, 20, 33, 34, 38, 41, 42A, 44, 45, 55, 55B, 55Y, 57 |  |  |  |  |  |  |
| NATURAL SCIENCES Complete $\mathbf{1}$ course from below <br> 3 UNITS <br> * Meets either the Natural Sciences or Social and Behavioral Sciences requirement |  |  |  |  |  |  |
| Anatomy 1 <br> Anthropology 1L, 13* <br> Astronomy 1, 10, 20, 30 <br> Biology 1, 5, 10, 20, 31, 50 <br> Botany 1 | Chemistry 1A, 30A, 31 <br> Ecology 10 <br> Environmental Studies 5 <br> Geography $\mathbf{1}^{*}$, $1 \mathrm{~L}, 8,15^{*}$ <br> Geology 1, 1L, 3, 3L, 5, 7, 12, 12L <br> Microbiology 1 | Physics 2A Physiology Psychology Zoology 1 | A, 10, 10L <br> 20* |  |  |  |
| HUMANITIES Complete $\mathbf{1}$ course from below *Meets Humanities and/or American Cultures requirement $\mathbf{3}$ UNITS |  |  |  |  |  |  |
| American Sign Language 2A <br> Art 1, 2A, 3A, 4, 5, 10 <br> English 11, 12, 13, 20, 32, 44*, 45 <br> French 2A <br> History 1, 2 | Humanities 3, 6, 7, 10, 28, 35, 44 <br> Music $1,4^{*}, 5^{*}, 12,14,43,44,45,46 \mathrm{~A}$, 46B <br> Philosophy 1, 2, 3, 4, 5 <br> Photography 67 | Religious <br> Spanish 2A <br> Speech 2A <br> Theater Ar <br> Welding T | udies 1, 2, 3, 11 <br> 5, 11* <br> 1A, 1B, 4*, 10, 12, 47, 48 <br> hnology 71 |  |  |  |
| SOCIAL AND BEHAVIORAL SCIENCES Complete 1 course from below <br> * Meets Social \& Behavioral Sciences and/or American Cultures requirement <br> ** Meets either Natural Sciences or Social \& Behavioral Sciences requirement |  |  |  |  |  |  |
| Anthropology 1, 2, 3, 4, 5*, 12, 13** <br> Business 30 <br> Early Childhood Development 15, 51, <br> 52, 62, 79* <br> Economics 1, 2, 5, 10 | Geography $1 * *, 2,5,12,15^{* *}$ <br> History 25, 28*, $32^{*}$ <br> Mass Communications 5, 31 <br> Political Science 7, 12, 20, 25, 30 | Psychology Psychology <br> Sociology | $1,2,3,4,12,13,15,20^{* *}$ Counseling $3^{*}, 8^{\star}, 13^{*}$ $3^{*}, 4,5,11$ |  |  |  |
| WELLNESS Complete $\mathbf{3}$ units from AREAS OF HEALTH and $\mathbf{1} \mathbf{u n i t}$ from PHYSICAL EDUCATION <br> * Exemption is allowed for illness or physical disability by filing a physician's statement at the Admissions \& Records Office. <br> Students who hold an AA/AS Degree or higher are exempt. |  |  |  |  |  |  |
| Areas of Health: Health 1, 3, 55 (2 units); Nutrition 1, Psychology 10 | Physical Education*: 4, 31-48, 50, Da course listed in the 2010-2012 Catalo | nce 1 and any Physic g | Education activity |  |  |  |
| AMERICAN INSTITUTIONS (AI) Complete $\mathbf{1}$ course from below; partially satisfies CSU AI requirement 3 UNITS |  |  |  |  |  |  |
| History 7, 8, 25, 32 | Political Science 7 |  |  |  |  |  |
| AMERICAN CULTURES Complete $\mathbf{1}$ course from below with a grade of ' $C$ ' or higher or ' P ' Where appropriate, the course can simultaneously satisfy 1 other graduation or subject requirement |  |  |  |  |  |  |
| Anthropology 5 <br> English 44 <br> Early Childhood Development 79 | History 14, 28, 32 <br> Music 4, 5 <br> Psychology-Counseling 3, 8, 13 | Political Sc <br> Sociology <br> Speech 11 <br> Theater Ar | $\text { ence } 12$ <br> 4 |  |  |  |
| LAS POSITAS COLLEGE ASSOCIATE IN ARTS DEGREE GRADUATION REQUIREMENTS <br> 1. Minimum of 60 units with a grade point average of 2.0 or better ( 12 units must be completed at Las Positas College). 2. All requirements for the Major (minimum of 18 units) plus electives to total 60 units. 3 General Education Requirements for the Associate in Arts Degree listed above. |  |  |  |  |  |  |

## DEGREES AND CERTIFICATES

## Las Positas College General Education Pattern for Associate in Science Degree 2010-2011 (Effective Fall 2010)



## TRANSFER TO A FOUR-YEAR COLLEGE OR UNIVERSITY

Las Positas College provides the freshman and sophomore years of a four-year college or university program. Students intending to transfer to four-year colleges and universities may complete their lower division general education requirements and major field preparatory courses at Las Positas College. The Counseling Office, Building 700, and the Career/Transfer/Employment Center, Building 900, provide the most current transfer information in addition to individual counseling appointments.
Students are advised to meet early and regularly with a counselor to ensure a smooth transition to the transfer institution. Counselors work with students to develop Student Educational Plans (SEPs) that map out the courses needed for successful transfer.

## Transfer Preparation

The main components of a typical transfer plan are listed below:
I. GENERAL EDUCATION REQUIREMENTS

To earn a bachelor's degree from the University of California (UC) or the California State University (CSU), students must complete a program of general education. The pattern for the CSU system is called CSU General Education Breadth Requirements, see pages 44-45. The Intersegmental General Education Transfer Curriculum (IGETC) is a pattern valid for both the UC and CSU systems, see page 43 . Some high-unit majors and certain UC campuses may have different requirements - consult a counselor for details.
II. LOWER-DIVISION MAJOR REQUIREMENTS

Students should take specific lower-division courses required for their chosen majors (also called major preparatory courses). Impacted majors (those that are competitive for admission) may require all or most major preparatory courses to be complete before transfer. ASSIST* (www.assist.org) lists the articulation agreements of these major preparatory courses for the UC and CSU campuses. The lower-division major requirements may differ depending on the institution; therefore, it is important for students to review the agreements for each university considered. *See ASSIST information that follows.

## III. ELECTIVES

Electives are additional transferable courses completed in order to meet the total number of units required to transfer.

## Transferability of Courses

Students may transfer a maximum of 70 community college semester units to most California public four-year colleges or universities. Courses in excess of 70 units may still be used to meet transfer requirements. Many baccalaureate level courses offered at Las Positas College have been articulated with the University of California (UC), California State University (CSU), and a number of private institutions. Current UC and CSU transfer flyers are available in the Career/ Transfer Center and Counseling Office. ASSIST.org also provides the most up-to-date lists of transferable courses. Students should review these transfer flyers at the beginning of each academic year to obtain updated information.


#### Abstract

ASSIST ASSIST (www.assist.org) is the official repository of articulation information for California public postsecondary educational institutions. ASSIST includes reports of how course credits earned at a California Community College may be applied when transferring to a public California university. Students are advised to meet with a counselor to learn how to use the information posted on ASSIST.


## CALIFORNIA STATE UNIVERSITY (CSU)

## Admission Requirements for Transfer to CSU

To be minimally eligible for junior-level transfer to a CSU campus, students must:

- Complete 60 CSU transferable units;
- Earn a college grade point average of 2.0 or better in all transferable courses;
- Be in good standing at the last college or university attended;
- Complete at least 30 semester units of general education requirements, see pages $38-39$ with grades of "C" or better. The
- 30 units must include all of the general education requirements in communication in the English language (English composition, oral communication, and critical thinking) and at least one course of at least 3 semester units in transferable mathematics.

Note: Some competitive campuses and/or majors have additional requirements. Consult a counselor for details.

Some CSU campuses may consider students who have completed fewer than 60 units if they meet the following requirements:

- Earn a 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;Meet the admission requirements for a first-time freshman or have successfully completed necessary courses to make up high school deficiencies;
- Meet the eligibility index required of a freshman.


## CSU General Education Requirements

Las Positas College offers two general education patterns which enable students to meet all of the lower-division general education requirements.

Students may complete one of the following patterns:

- Intersegmental General Education Transfer Curriculum (IGETC), page 43;
- CSU General Education Breadth Requirements, pages 44-45.


## Priority Application Filing Dates for CSU

| Summer Term | Feb. 1-28 of that year |
| :--- | :--- |
| Fall Semester or Quarter | Oct. 1-Nov. 30 of previous year |
| Winter Quarter | June 1-30 of previous year |
| Spring Semester or Quarter | Aug. 1-31 of previous year |
| NOTE: Not all campuses admit students every semester/quarter |  |

## CSU Resources

CSU Mentor - www.csumentor.edu - provides information regarding admission requirements, application deadlines, and specific CSU campuses.

## UNIVERSITY OF CALIFORNIA (UC)

Admission Requirements for Transfer to UC
To be minimally eligible for junior-level transfer to a UC campus, students must:

- Complete 60 UC transferable units with a GPA of at least 2.4; no more than 14 units may be taken Pass/No Pass.
- Complete the following seven-course pattern, earning a grade of $C$ or better in each class:

ENGLISH COMPOSITION-two transferable college courses (3 semester units each);

MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING—one transferable college course (3 semester units);

ARTS AND HUMANITIES, SOCIAL AND BEHAVIORAL SCIENCES, AND/ OR PHYSICAL AND BIOLOGICAL SCIENCES—four transferable college courses (3 semester units each) chosen from at least two of these subject areas.

Note: Completion of IGETC will satisfy the above seven-course pattern for UC admission, but not the 60 unit requirement. Some competitive campuses and/or majors have additional requirements. Consult a counselor for details.

## UC General Education Requirements

Students may complete one of the following:

- Intersegmental General Education Transfer Curriculum (IGETC)*, page 43.
- General education requirements of the receiving UC campus
*UC San Diego's Eleanor Roosevelt and Revelle Colleges and UC Berkeley Haas School of Business will NOT accept IGETC.
*IGETC is not advisable for some high unit majors. Consult a counselor to determine the best option.


## Priority Application Filing Dates for UC

Fall Semester or Quarter
Nov. 1-30 of previous year
Winter Quarter/ Spring Semester July 1-31 of previous year
NOTE: Not all campuses admit students every semester/quarter

## UC Resources

The web site www.universityofcalifornia.edu/admissions provides up-to-date UC transfer admissions and application information.

## Certification of General Education for Transfer to UC and CSU

IGETC and CSU GE Breadth certification is the process by which the community college verifies that a student has completed all the required coursework for the IGETC or CSU GE Breadth pattern. Students who transfer without certification may have to meet the general education requirements of the destination campus. Certification is not automatic and must be requested after acceptance to the university. This request should be made in the Counseling Office. The certification will be sent after final grades are posted.

## Private/Independent and Out-of-State Colleges and Universities

Transfer requirements for private and out-of-state colleges and universities vary. Students should consult the transfer institution's catalog or website. Las Positas College counselors can also advise students on independent college and university requirements and preparation.

## TRANSFER SERVICES

## Career/Transfer/Employment Center (Building 900)

The Transfer Center, 925.424.1423, provides educational and career information through coordinated resources and activities. Transfer services include:

- Individual appointments with college and university representatives;
- Access to library of college and university catalogs, both in print and online;
- Coordination of Transfer Admission Guarantee programs (see below);
- Transfer events, including Transfer Day and the President's Transfer Reception;
- Workshops that assist with transfer planning, the application process, and the personal statement.


## Counseling Office

The Counseling Office, 925.424 .1400 , provides educational plans for students intending to transfer, assistance with career and major selection, and other transfer-related services. For more information, see page 22 .

## Transfer Admission Guarantees

A Transfer Admission Guarantee (TAG) is a contract that guarantees admission to the participating university. This contract includes all courses a student must complete, as well as required GPA, in order to guarantee transfer admission. Students must also apply for admission to the university during the appropriate filing period. The following four-year institutions participate in a TAG program with Las Positas College: CSU East Bay, CSU Monterey Bay, UC Davis, UC Merced, UC Santa Cruz, UC Riverside, UC Irvine, UC Santa Barbara, UC San Diego, Saint Mary's College, and University of the Pacific. To begin the process, students must consult with a counselor at least one year prior to transfer.

## UNIVERSITY TRANSFER CERTIFICATES

Certificate of Achievement<br>University Transfer -<br>CSU General Education Breadth<br>- certificate

Students transferring to the California State University have the opportunity to complete their lower division general education requirements at Las Positas College. This pattern of general education requires a minimum of 39 semester units to be completed. The Certificate of Achievement in University Transfer - CSU General Education Breadth will officially acknowledge a significant educational achievement the student has completed at Las Positas College. The list of approved courses may be found on pages 44-45. Counselor assistance is advised.

| CSU - General Education Areas | Semester <br> Units <br> (minimum) |
| :--- | :---: |
| AREA A - English Language <br> Communication and Critical Thinking <br> (3 courses) | 9 |
| AREA B - Scientific Inquiry and <br> Quantitative Reasoning <br> (3 courses) | 9 |
| AREA C - Arts and Humanities <br> (3 courses) | 9 |
| AREA D - Social Sciences <br> (3 courses) | 9 |
| AREA E Lifelong Learning and Self <br> Development <br> (1-2 courses) | 39 |
| CSU GRADUATION REQUIREMENT <br> US History, Constitution and American <br> Ideals (0-2 courses)* | 3 |
| TOTAL UNITS (minimum) | $0-7$ |

## *Courses may be also be applied to Area D

Earning this Certificate of Achievement WILL NOT replace the "CSU GE Certification" document. The "Certification of CSU General Education Breadth" is a SEPARATE PROCESS. The student must request CSU GE Certification in the Counseling Office after admission to the transfer institution

## Certificate of Achievement <br> University Transfer - IGETC <br> (Intersegmental General Education Transfer Curriculum) <br> - certificate

Students transferring to University of California or California State University have the opportunity to complete their lower division general education requirements at Las Positas College. This pattern of general education requires a minimum of 34 semester units to be completed. The Certificate of Achievement in University Transfer - IGETC will officially acknowledge a significant educational achievement the student has completed at Las Positas College. The list of approved courses may be found on page 43. Counselor assistance is advised.

| IGETC Areas | Semester <br> Units <br> (minimum) |
| :--- | :---: |
| AREA 1- English Communication (2-3 <br> courses) | $6($ (UC) or <br> $9(C S U)$ |
| AREA 2 - Mathematical Concepts and <br> Quantitative Reasoning (1 course) <br> (3 courses) |  |
| AREA 3 - Arts and Humanities (3 courses) | 3 |
| AREA 4 - Social and Behavioral Sciences <br> (3 courses) | 9 |
| AREA 5 - Physical Science and Biological <br> Science (2 courses) | 9 |
| AREA 6 - Language Other Than English <br> (UC only 0-1 course) | 7 |
| CSU GRADUATION REQUIREMENT <br> US History, Constitution and American <br> Ideals (0-2 courses)* | $0-7$ |
| TOTAL UNITS (minimum) | 34 |

[^0]
## IGETC REQUIREMENTS

## Intersegmental General Education Transfer Curriculum (IGETC)

Las Positas College 2011-2012 (Effective Fall 2011)
MAY BE USED FOR GENERAL EDUCATION CERTIFICATION FOR THE UNIVERSITY OF CALIFORNIA AND/OR THE CALIFORNIA STATE UNIVERSITY

| USE THE BOXES ON THE RIGHT TO RECORD YOUR PROGRESS: | N= NEED | IP=IN PROGRESS | C=COMPLETED | N | IP | C |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AREA 1: ENGLISH COMMUNICATION <br> CSU: Select $\mathbf{3}$ courses, total $\mathbf{9}$ units required, select $\mathbf{1}$ from EACH grour UC: Select $\mathbf{2}$ courses, total $\mathbf{6}$ units required, select $\mathbf{1}$ from Group 1A | pelow nd 1 from | up 1B |  |  |  |  |


| GROUP 1A: English Composition (3 units) | English 1A |  |
| :--- | :--- | :--- |
| GROUP 1B: Critical Thinking/English Composition (3 units) | English 4 or 7 |  |
| GROUP 1C: Oral Communication - CSU only (3 units) $\quad$ Speech 1 or 46 |  |  |
| AREA 2: MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING |  |  |
| Select $\mathbf{1}$ course from below; minimum $\mathbf{3}$ units required |  |  |
| Mathematics 1, 2, 3, 5, 7, 10, 20, 33, 34, 42A, 42B, 44, 45 |  |  |
| AREA 3: ARTS AND HUMANITIES |  |  |
| Select $\mathbf{3}$ courses from below, minimum $\mathbf{9}$ units; at least $\mathbf{1}$ course from ARTS, $\mathbf{1}$ course from HUMANITIES |  |  |

3A: ARTS Select at least $\mathbf{1}$ course from below:
Art 1, 4, 5
Music 1, 4, 5, 8A, 8B
Photography 67
Theater Arts 4, 10, 11, 12, 14*
*Minimum of 3 units required to clear requirement

3B: HUMANITIES Select at least 1 course from below:
American Sign Language 2A, 2B
English 3, 20, 32, 44, 45
French 2A, 2B
Humanities 3, 6, 10, 28, 35, 44
Philosophy 1, 2, 3, 4, 5
Religious Studies 1, 2, 3, 11
Spanish 2A, 2B

## AREA 4: SOCIAL AND BEHAVIORAL SCIENCES

Select $\mathbf{3}$ courses from below, minimum $\mathbf{9}$ units; from at least 2 subgroups below

4A: Anthropology \& Archaeology
Anthropology 1*, 2, 3, 4, 5, 12

## 4B: Economics

Economics 1, 2, 5, 10
4C: Ethnic Studies
Psychology-Counseling 13
4D: Gender Studies
History 32
Psychology 13
Women's Studies 1, 2
4E: Geography
Geography 2, 5, 12
4F: History
History 1, 2, 7, 8, 14, 25, 28, 32

4G: Interdisciplinary, Social \& Behavioral Sciences
Early Childhood Development 52, 56
Mass Communications 5, 31
Psychology-Counseling 13
Sociology 5
Women's Studies 1, 2
4H: Political Science, Government \& Legal Institutions
Political Science 7, 12, 20, 25, 30
41: Psychology
Psychology 1, 2, 3, 4*, 6, 12, 13, 20

## 4J: Sociology \& Criminology

Sociology 1, 3, 4, 6, 11
*Courses may be listed in more than one area but will NOT be certified more than once

## AREA 5: PHYSICAL SCIENCE AND BIOLOGICAL SCIENCE

Select 1 Physical Science course and 1 Biological Science course from below; minimum $\mathbf{7}$ units;
1 course must include a laboratory indicated with an underline
*Courses may be listed in more than one area but will NOT be certified more than once

## 5A: PHYSICAL SCIENCE

Astronomy 1, 10, 20, 30
Chemistry $1 \mathrm{~A}, 1 \mathrm{~B}, 12 \mathrm{~A}, 12 \mathrm{~B}, 30 \mathrm{~A}, 30 \mathrm{~B}, \underline{31}$
Environmental Studies 5
Geography 1, 1L, 8
Geology 1, 1L, 3, 3L, 5, 7, 12, 12L
Physics 2A, 2B, 8A, 8B, 8C, 8D, 10, 10L
5B: BIOLOGICAL SCIENCE

Anatomy 1
Anthropology ${ }^{*}$, 1 L
Biology 1, 5, 10, 20, 31, 50
Botany 1
Ecology 10
Microbiology 1

AREA 6: LANGUAGE OTHER THAN ENGLISH - UC REQUIREMENT ONLY
Proficiency in a language other than English may be met in one of the ways listed below

1. Complete $\mathbf{1}$ of the following courses or a higher level: ASL 1A, French 1A, Italian 1A, Spanish 1A.
2. Complete $\mathbf{2}$ years of high school study in the same language, completed with a grade of ' $C$-' or higher.
3. Demonstrating equivalent proficiency prior to transfer may also satisfy this requirement. See counselor for details.

## AMERICAN INSTITUTIONS REQUIREMENT - CSU GRADUATION REQUIREMENT ONLY

Complete $\mathbf{1}$ of the combinations below. These courses may also be applied to Area 4.
Group 1: History 7 and History 8
Group 2: Political Science 7 and one of the following: History 7, 8, 25, 32
PLEASE NOTE THIS IMPORTANT INFORMATION
1.For a course to meet an IGETC requirement, the course must be on the IGETC list during the academic year it is taken.
2.All courses taken to meet IGETC requirements must be completed with a grade of ' C ' or better.
3.Students are encouraged to meet with a counselor to discuss the various requirements for transfer and to make a Student Education Plan (SEP).

## FAQs - Intersegmental General Education Transfer Curriculum (IGETC)

## Q: What is the Intersegmental General Education Transfer Curriculum (IGETC)?

A: IGETC is a general education pattern which community college transfer students can follow to fulfill lower-division general education requirements for either the UC or CSU systems. This pattern is advisable for students who are undecided about their transfer goals because it keeps their options open. Many private/independent colleges/universities also recognize or accept IGETC (check with a counselor for details).

Q: Is IGETC an admission requirement?
A: $N O$. There is no connection between completion of IGETC and eligibility for admission to the CSU or UC system.

## Q: What alternatives to IGETC exist?

A: Community college students who are CSU-bound have the option of completing the CSU General Education Breadth requirements. Students who are UC-bound have the option of completing the general education requirements of the destination UC campus or the minimum UC transfer admission requirements as listed on ASSIST.org > select Las Positas College and UC Transfer Admission Eligibility Courses.

## Q : Is it advisable for all transfer students to follow IGETC?

A: NO. Not all majors should follow IGETC. Students pursuing majors that require extensive lower-division major preparation (i.e. Engineering) may not find IGETC advantageous, and the transfer institution may advise following the minimum UC eligibility requirements listed on ASSIST.org > select Las Positas College and UC Transfer Admission Eligibility Courses.

Q: What are the minimum UC Transfer Eligibility Requirements for junior-level transfer students?
A: Minimum Admission Requirements:

- 60 UC transferable units
- Cumulative GPA (impacted campuses and majors may require higher GPAs)
- No more than 14 semester units taken Pass/Not Pass (P/NP)
- 7 UC transferable GE courses as follows:
- 2 courses in English composition (ENG 1A AND ENG 3, 4, or 7)
- 1 course in Mathematical Concepts and Quantitative Reasoning (IGETC Area 2)
-4 courses chosen from at least 2 of these subject areas (see IGETC for approved courses):
- Arts and Humanities
- Social and Behavioral Sciences
- Physical and Biological Sciences
- Will all UC and CSU campuses accept IGETC?
- UC San Diego's Eleanor Roosevelt and Revelle Colleges and UC Berkeley's Haas School of Business will NOT accept IGETC.

Q: Can I use Advanced Placement (AP) exams for IGETC?
A: YES. AP exams may be applied to IGETC with passing scores. For details, see the AP Chart in the LPC Catalog.

## Q: What is "IGETC Certification" and how do I request it?

A: IGETC certification is the process by which the community college verifies that a student has completed all the required coursework for the IGETC pattern (partial completion is possible), which is sent directly to the transfer institution. If IGETC is not certified, students may be subject to the lower-division general education requirements of the campus to which they transfer. Request an IGETC Certification in the Admissions \& Records at the end of the last semester before transferring.

California State University General Education (GE) Breadth Requirements<br>Las Positas College 2011-2012 (Effective Fall 2011)



# California State University General Education (GE) Breadth Requirements (continued) 

Las Positas College 2009-2010 (Effective Fall 2009)


## PLEASE NOTE THE FOLLOWING:

1. For a course to meet a CSU GE requirement, the course must be on the CSU GE list during the academic year it is taken.
2. The CSU GE Breadth pattern is not an admission requirement. If appropriate for the major, students may complete the minimum eligibility requirements for CSU - see a counselor for details and advisement.
3. Advanced Placement (AP) exams with passing scores may be applied to the CSU GE pattern. For details, see the AP chart in the Catalog.
4. Request a CSU GE certification in the Admissions \& Records Office at the end of the last semester before transferring. The certification is the process by which the community college verifies that a student has completed all the required coursework for the CSU GE pattern (partial completion is possible), which is sent directly to the transfer institution. If CSU GE is not certified, students may be subject to the lower-division GE requirements of the campus to which they transfer.

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Transfer, Degree and Certificate Programs

| NAME | AA | AS | CERT | NAME | AA | AS | CERT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accounting Technician** |  |  | $\checkmark$ | Humanities (general) | $\checkmark$ |  |  |
| Administration of Justice** | $\checkmark$ |  |  | Interior Design** |  | $\checkmark$ | $\checkmark$ |
| Administrative Assistant** | $\checkmark$ |  | $\checkmark$ | International Studies | $\checkmark$ |  |  |
| Administrative Medical Assistant** |  |  | $\checkmark$ | Liberal Arts and Sciences | $\checkmark$ |  |  |
| Art (Emphasis in Painting) | $\checkmark$ |  |  | Marketing** | $\checkmark$ |  | $\checkmark$ |
| Automotive California Smog** |  |  | $\sqrt{ }{ }^{\text {d }}$ | Mass Communications: Journalism** |  |  | $\checkmark$ |
| Automotive Electronics Technology** |  | $\checkmark$ |  | Music | $\checkmark$ |  |  |
| Automotive Service Technician** |  |  | $\checkmark$ | Music Teaching Beginning Piano**ł |  |  | $\checkmark$ |
| Automotive Technician** |  |  | $\checkmark$ | Music Teaching Intermediate Piano** $\ddagger$ |  |  | $\checkmark$ |
| Biology | $\checkmark$ |  |  | Network Security and Administration** |  | $\checkmark$ |  |
| Biology: Emphasis in Allied Health $\ddagger$ | $\checkmark$ |  |  | Network and Wireless Security** |  |  | $\sqrt{ } \sqrt{ }$ |
| Bookkeeping** |  |  | $\sqrt{ }{ }^{\text {d }}$ | Occupational Safety and Health**耳 |  | $\checkmark$ | $\checkmark$ |
| Business** |  | $\checkmark$ |  | Photography |  |  | $\sqrt{ } \downarrow$ |
| Business Administration | $\checkmark$ |  |  | Physical Education (transfer preparation) | $\checkmark$ |  |  |
| Business Entrepreneurship** | $\checkmark$ |  | $\checkmark$ | Physical Education, Coaching |  |  | $\sqrt{ }{ }^{\text {s }}$ |
| Business Retail Management** |  |  | $\checkmark$ | Physical Education, Sports Medicine |  |  | $\sqrt{ }$ § |
| Business Workforce Proficiency** |  |  | $\sqrt{ }{ }^{\text {d }}$ | Physics |  | $\checkmark$ |  |
| Chemistry |  | $\checkmark$ |  | Psychology (transfer Preparation) | $\checkmark$ |  |  |
| Cisco Network Associate** |  |  | $\checkmark$ | Psychology/Counseling - |  |  | $\checkmark$ |
| Cisco Network Professional** |  |  | $\checkmark$ | See Health and Human Services $\ddagger$ |  |  |  |
| Computer Applications Software |  |  | $\checkmark$ | Retailing** |  |  | $\checkmark$ |
| (Microcomputers) |  |  | $\checkmark$ | Social Science (general) | $\checkmark$ |  |  |
| Computer Desktop OS Security** |  |  | $\sqrt{ }{ }^{\text {d }}$ | Speech | $\checkmark$ |  |  |
| Computer Forensics Examiner** |  |  | $\sqrt{ } \sqrt{ }$ | Surgical Technology** |  | $\checkmark$ | $\checkmark$ |
| Computer Information Systems** | $\checkmark$ |  |  | Supervisory Management** |  |  | $\checkmark$ |
| Computer Network Administration (Microsoft)** |  |  | $\sqrt{\text { ® }}$ | TCP/IP Network Analysis** |  |  | $\sqrt{ }$ \$ |
| Computer Network Technician** |  |  | $\sqrt{ }$ § | Theater Arts | $\checkmark$ |  |  |
| Computer Programming |  | $\checkmark$ | $\sqrt{ }$ | Transfer to CSU - CSU GE Breadth |  |  | $\checkmark$ |
| Computer Programming for the Web |  | $\checkmark$ | $\checkmark$ | Transfer to CSU or UC - IGETC |  |  | $\checkmark$ |
| Computer Science |  | $\checkmark$ |  | Visual Communications** | $\checkmark$ |  | $\checkmark$ |
| ECD Associate Teacher Certificate** |  |  | $\checkmark$ | Viticulture and Enology* | TRANSFER PREPARATION |  |  |
| ECD Basic Teacher Certificate** |  |  | $\checkmark$ | Viticulture and Winery Technology-Enology** |  | $\checkmark$ | $\checkmark$ |
| ECD Early Childhood Development** | $\checkmark$ |  |  |  |  |  |  |
| ECD Early Intervention Assistant** | $\checkmark$ |  | $\checkmark$ | Viticulture and Winery Technology-Viticulture** |  | $\checkmark$ | $\checkmark$ |
| ECD Family Childcare** |  |  | $\checkmark$ | Welding Technology** |  | $\checkmark$ | $\checkmark$ |


| Electronics |  | $\checkmark$ | $\checkmark$ |
| :--- | :---: | :---: | :---: |
| Telecommunications Systems** |  |  | $\checkmark$ |
| Emerging Technologies** |  |  | $\checkmark$ |
| Engineering* | TRANSFER PREPARATION |  |  |
| English | $\checkmark$ |  |  |
| Environmental Studies $\ddagger$ | $\checkmark$ |  |  |
| Fire Service Technology** |  | $\checkmark$ | $\checkmark$ |
| Health and Human Services $\ddagger$ |  |  | $\checkmark$ |
| Horticulture** |  | $\checkmark$ | $\checkmark$ |

Key:

-     * Transfer Preparation Programs designed for transfer, and do not confer a degree.
- ** Occupational Programs designed for direct job entry; however, many courses in these programs are transferable to many 4-year institutions. Students should consult a counselor for information.
- $\ddagger$ Approval by State Chancellor's Office is pending.


## Career Certificate:

- § These certificates are not transcripted. This group of courses provides industrybased professional development. Individual courses will appear on transcript. See a counselor for further information.


## Key to Course Information

## Course Scheduling

Information regarding the days, hours, instructors, and rooms in which classes will be held in each semester and summer session is contained in the Class Schedule, available in the Bookstore prior to the start of each semester and summer session, and on CLASS Web, accessible at www. laspositascollege.edu.

## Registration

To receive credit, students must register in a course within the officially designated time. Auditing of specific classes is allowed (see page 12).

## Semester Units

All courses in this Catalog are described in semester units.

## Prerequisites

Many courses offered by the College require the completion of prerequisite courses. Students are advised to consult the course descriptions found in this Catalog for the identification of the prerequisites for a course. Courses with prerequisites are also designated in the current Class Schedule. See page 12 for prerequisite definitions and additional information.

## Numbering System

Courses numbered 1-99 are generally transferable. Courses numbered 100-149 are basic skills courses and are not for AA Degree, AS Degree or transfer credit. Courses numbered 150-199 (Continuing Education) may be applied for graduation credit (limit 6 units).
9... $\qquad$ Colloquia
29............... Independent Study (Transfer)
49.
................ Contemporary Studies
99............... Special Studies

100-149...... Basic Skills*

150-199...... Continuing Education Studies
200-299.... Community Interest Studies (Non-Credit)

[^1]
## Course Notation

The courses in this Catalog have been annotated with the abbreviations used on the College transcript, e.g., Administration of Justice (AJ).

## Course Description Annotations

The courses in this Catalog have been annotated with codes to identify

- Grading Option
- Transfer status to baccalaureate-degree institutions;

The following information explains how to interpret these codes.

The grading option for a course is indicated as follows:

| OP | May be taken for a letter grade or pass/no pass |
| :--- | :--- |
| GR | Must be taken for a letter grade only |
| P/N | Must be taken for pass/no pass only |

## Transfer credit is indicated as follows:

UC University of California
CSU California State University

## University of California Transfer Limitations

Refer to WWW.ASSIST.ORG for the most current limitations on UC transfer credit. See also individual courses in this Catalog or consult a counselor.

## The grading option for each course is listed below the course description in the following pages:

OP May be taken for a letter grade or pass/no pass

GR Must be taken for a letter grade only

P/N Must be taken for pass/no pass only

## Transfer credit is indicated as follows:

UC University of California
UC* Special Credit Limitations are noted on individual courses. Refer to www.assist.org for the most current limitations on UC transfer credit or consult a counselor.

CSU California State University

# ADMINISTRATION OF JUSTICE 

OdeGree

## About the Program

The Las Positas College Administration of Justice program offers courses that lead to an Associate in Arts degree and a Basic Peace Officer Academy for students seeking full-time employment in law enforcement. The degree program prepares students for transfer to a four-year college or university while the Basic Peace Officer Academy program prepares students for direct job entry with a California law enforcement agency. Students interested in Forensics are directed to the Computer Networking Technology Certificate in Computer Forensics Examiner (page 79 this catalog).

## Degrees/Certificates

- Degree:
- AA - Administration of Justice
- A California Peace Officer's Standards and Training Basic Academy Certificate is awarded upon successful completion of the Alameda County Sheriff's POST Academy.


## Careers and Opportunities

Career opportunities in AJ include: Municipal or Special District Police Officer, County Deputy Sheriff, FBI Agent*, DEA Agent*, Game Warden, Highway Patrol Officer, State Narcotics Agent, Lawyer*, Forensic Specialist*, Probation Officer*, Parole Agent*, and a host of other careers and jobs. (* Denotes a four-year degree requirement for that position).

## Transferability

The Administration of Justice degree includes the lower-division degree requirements typical of four-year institutions. While units in this program are transferable to many institutions, students should consult a counselor for transfer information. General education requirements should be selected carefully based on the intended transfer institution.

## AA - Administration of Justice

Freshman YearAdministration of Justice 50 (Introduction to Administrationof Justice)3
Administration of Justice 54 (Investigative Reporting). .....  3
Administration of Justice 60 (Criminal Law) .....  3
Administration of Justice 61 (Evidence) .....  3
Electives* ..... 0-6
General Education Courses
Sophomore Year Administration of Justice 63 (Criminal Investigations). .....  3
Administration of Justice 68 (Police Ethics and Leadership) .....  .3
Administration of Justice 70 (Community Relations). .....  3
Emergency Medical Services 61 (First Responder) ..... 2.5
Electives* ..... 0-6
General Education Courses
Total units required ..... 60
*Electives
Select from the following for a minimum of 6 units:
Administration of Justice 55 (Introduction to Correctional Science)
Administration of Justice 56 (Fundamentals of Crime and Delinquency)
Administration of Justice 59 (Child Abuse in the Community)
Administration of Justice 62 (The Justice System)
Administration of Justice 64 (Patrol Procedures)
Administration of Justice 66 (Juvenile Procedures)
Administration of Justice 69 (Sex Crime Investigation)
Administration of Justice 71 (Narcotics and Drug Enforcement)
Administration of Justice 74 (Gangs and Drugs)
Administration of Justice 79 (Homicide Investigation)
Administration of Justice 89 (Family Violence)
Anthropology 13 (Introduction to Forensic Anthropology)
Computer Network Technology 68 (Introduction to Computer Forensics)
Computer Network Technology 70 (Computer Forensics II)
Psychology 6 (Abnormal Psychology)
Psychology 12 (Life-Span Psychology)
Sociology 1 (Principles of Sociology)
Sociology 6 (Social Problems)

# ADMINISTRATION OF JUSTICE (AJ) 

INTRODUCTION TO ADMINISTRATION OF JUSTICE

3 UNITS
(Included in CORE curriculum of baccalaureate degree-granting institutions.) History and philosophy of administration of justice in America; recapitulation of the system; identifying the various subsystems, role expectations, and their interrelationships; theories of crime, punishment, and rehabilitation; ethics, education and training for professionalism in the system. 3 hours lecture. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

AJ 54 INVESTIGATIVE REPORTING 3 UNITS
Investigative reports with emphasis upon accuracy and details necessary. Includes arrest reports, incident reports, and miscellaneous field reports. Techniques and methods used to cover information; how to analyze and present information in a clear and concise report. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## AJ 55 INTRODUCTION TO CORRECTIONAL SCIENCE 3 UNITS

Aspects of modern correctional process as utilized in rehabilitation of adult and juvenile offenders. Emphasis on custody, rehabilitation and treatment programs as recognized by modern penology. Exploration of career opportunities. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## AJ 56 FUNDAMENTALS OF CRIME

 AND DELINQUENCY2 UNITS
Survey of the sociological and psychological theories pertaining to the causation of crime and delinquency. Includes ethnic considerations and their relationships. 2 hours lecture. Transfer: CSU, UC
Degree Applicable, Credit Grading Option: OP

## AJ 59 CHILD ABUSE IN THE COMMUNITY 2 UNITS

Dynamics of the battered child syndrome. Focus on the abusive caretaker, patterns of abuse, and means necessary for effective intervention and treatment including effective legal and social action to control child abuse in the community. 2 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## AJ 60 <br> CRIMINAL LAW <br> 3 UNITS

(Included in CORE curriculum of baccalaureate degree-granting institutions) Historical development, philosophy of law and constitutional provisions; definitions, classification of crime, and their application to the system of administration of justice; frequently used Penal Code and other code sections; case law, methodology, and concepts of law as a social force. 3 hours lecture. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: GR

AJ 61 EVIDENCE 3 UNITS
(Included in CORE curriculum of baccalaureate degree-granting institutions) Origin, development, philosophy and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds and degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR
AJ 62 THE JUSTICE SYSTEM 3 UNITS
(Included in CORE curriculum of baccalaureate degree-granting institutions) Roles and responsibilities of each segment within the Administration of Justice System: law enforcement, judicial, corrections. Past, present and future exposure to each sub-system; procedures from initial entry to final disposition and the relationship each segment maintains with its system members. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## AJ 63 CRIMINAL INVESTIGATION <br> 3 UNITS

Fundamentals of investigation; crime scene search and recording; collection and preservation of physical evidence; scientific
aids; modus operandi; sources of information; interviews and interrogation; follow-up and case preparation of specific crimes. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## AJ 64 PATROL PROCEDURES

3 UNITS
Responsibilities, techniques of observation, community relations and methods of police patrol. Emphasis on legal and practical aspects. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit Grading Option: GR

## AJ 65 TRAFFIC RULES AND INVESTIGATION <br> 3 UNITS

Traffic law enforcement, regulation and control; fundamentals of traffic accident investigation; California Vehicle Code. Prerequisite: Administration of Justice 61 (completed with a grade of "C" or higher). 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR
AJ 66 JUVENILE PROCEDURES
2 UNITS
Organization, functions and jurisdiction of juvenile agencies; processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures. 2 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

## AJ 68 POLICE ETHICS AND LEADERSHIP 3 UNITS

This course will explore the ethical, legal and moral complexities of law enforcement in a democracy. From the initial application process and background investigation of a potential law enforcement recruit, to the working law enforcement officer, the course will examine society's need for ethical behavior and leadership by law enforcement agencies and the personal commitment to ethical behavior and ethical leadership by individual law enforcement officers, both on the job and in their private lives. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
AJ 69 SEX CRIME INVESTIGATION
3 UNITS
Sexual assault investigations; human behavior in relation to sexual attitudes and behavior; sexual assault laws and investigations; interview and interrogation techniques; court preparation and trial phase; sex crime prevention. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

AJ 70 COMMUNITY RELATIONS 3 UNITS
Roles of the Administration of Justice practitioners and their agencies. Interrelationships and role expectations among various agencies and the public. Emphasis on the professional image of the system of Justice

Administration and development of positive relationships between members of the system and the public. 3 hours lecture.Transfer: CSU, UC Degree Applicable, Credit Grading Option: GR

## AJ 71 NARCOTICS AND DRUG ENFORCEMENT 3 UNITS

Local, state, and federal narcotics problems and laws; application of investigative procedures and the work and method of special narcotics units; method of locating and apprehending violators; the use of informants and undercover persons. 3 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP
AJ 73 OFFICER SURVIVAL 1 UNIT
Techniques for defensive officer survival; assaults against police and related incidents; training in techniques of survival. 1 hour. Transfer: CSU Degree Applicable, Credit

Grading Option: P/N
AJ 74 GANGS AND DRUGS
3 UNITS
Definition of a gang and gang activity. Historical, cultural and ethnic/racial aspects. Interrelationships among local, national, and international gangs, including prison gangs. Gang activity in relation to drug trafficking. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit Grading Option: OP
AJ 75 SECURITY FIREARMS QUALIFICATION 0.5 UNIT
Moral, legal aspects, civil and criminal liability of firearm use on the job. Emphasis on effective use of the firearm includes minimal qualification of actual firing on the range. 14 total hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: P/N
AJ 76 BATON TRAINING FOR SECURITY GUARDS 0.5 UNIT Legal uses of the baton, emphasis on appropriate and legal use of the baton. Exercising self-discipline in the use of the baton. Includes training and demonstration of techniques. 12 total hours. Transfer: CSU Degree Applicable, Credit

Grading Option: P/N
AJ 77 POWERS TO ARREST
0.5 UNIT

Legal authority in powers to arrest; differences between detention and arrest. Designed for Security Guards to meet the California State law requirements. 9 total hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: P/N

AJ 79 HOMICIDE INVESTIGATION 3 UNITS
Process of analysis of all aspects of the death case in order to arrive at the true cause and manner of the death, whether it is murder, suicide, accidental or natural. Emphasis on importance of the death scene related to investigation of cause. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
AJ 89
FAMILY VIOLENCE
2 UNITS
Origins of violence in the family from the administration of justice perspective. Specific types of violent interactions and abuse among family members. Emphasis on techniques for use by peace officers to intervene effectively. 2 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR
AJ 90 RESERVE MODULE A: ARREST AND CONTROL4 UNITS
Ethical considerations concerning arrest; laws of arrest; search and seizure; methods of arrest; investigation and communications; law enforcement ethics. Designed to satisfy the 1993 revised requirements of Penal Code 832. 4 hours lecture.
Degree Applicable, Credit
Grading Option: $\mathrm{P} / \mathrm{N}$

AJ 91 RESERVE MODULE A: FIREARMS 2 UNITS
Ethical considerations concerning the use of firearms. Firearms safety. Techniques of shooting and range qualification. Prerequisite: Administration of Justice 90 (completed with a grade of "C" or higher) 2 hours lecture.
Degree Applicable, Credit
Grading Option: P/N

## AJ 92 RESERVE MODULE B, PART I: ROLE OF THE BACKUP OFFICER

3 UNITS
Elements involved in backing up another officer; professional orientation; communications; criminal law; traffic stops; custody issues; patrol. Designed to meet part of Module B for the Level II Reserve Peace Officer. Certified by the California Commission on Peace Officer Standards and Training. 2 hours lecture, 3 hours laboratory Degree Applicable, Credit

Grading Option: GR
AJ 93
RESERVE MODULE B, PART II:
ROLE OF THE BACKUP OFFICER
4 UNITS
Elements involved in backing up another officer; vehicle operations;
First Aid/CPR; force and weaponry and remediation of skills. Designed to meet part of Module B for the Level II Reserve Peace Officer.
Certified by the California Commission on Peace Officer Standards and Training. 2 hours lecture, 6 hours laboratory.
Degree Applicable, Credit
Grading Option: GR

AJ 94 RESERVE MODULE C 5 UNITS
Professional orientation; police community relations; patrol procedures; domestic violence; laws of evidence; traffic issues; criminal investigation. Designed to meet the legal requirements for Module C for Level I Reserve Peace Officer. Certified by the California Commission on Peace Office Standards and Training. Prerequisite: Administration of Justice 93 completed with a grade of " $C$ " or higher). 5 hours lecture.
Degree Applicable, Credit Grading Option: GR

AJ 9964 POST CONTINUING PROFESSIONAL 1 UNIT TRAINING
This course is designed for the continuing professional training of California Peace Officers as required by state law and the Commission on Peace Officer Standards and Training (POST). This course partially fulfills the state-mandated 24 hour biannual minimum training requirements. Students must have successfully completed a California POST academy or the equivalent and be currently serving as an active duty California peace officer. One hour lecture.

## ADMINISTRATION OF JUSTICE LAW ENFORCEMENT ACADEMY

The following courses are offered by the Alameda County Regional Training Center in conjunction with the Las Positas College Administration of Justice Program.

## BASIC ACADEMY COURSE

AJ 9997 LAW ENFORCEMENT ACADEMY
19.25 UNITS

Basic concepts of law enforcement, covering investigation, procedures, records, laws, tactics, firearms and public and human relations. The Law Enforcement Academy is certified by the Commission of Peace Officer Standards and Training (POST). Prerequisites: Administration of Justice $50,60,61,62$ and 70 and the student must be able to pass the minimum requirements for peace officer hiring as listed under California Government Code 1029 et al., or employment as a peace officer. 1.056 total hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: P/N
Students may initiate the application process by contacting Sgt. Dwaine Montes at 925-551-6972 or email at dmontes@acgov.org. The mailing address is Alameda County Sheriff's Department Regional Training Center, 6289 Madigan Road, Dublin, California 94568. The fax number is $925-551-6985$.

PEACE OFFICER STANDARDS AND TRAINING (POST) ACADEMY COURSES

Eligibility for these courses requires the student to be a currently serving peace officer in the State of California or have been hired by the Alameda County Regional Training Center (ACSO) for the Sheriff's Technician's Academy.

| AJ 9952 | SURVIVAL SHOOTING | 1 UNIT |
| :---: | :---: | :---: |
| AJ 9953 | OFFICER SAFETY: FIELD TACTICS FOR |  |
|  | PLAINCLOTHES ASSIGNMENTS | 1 UNIT |
| AJ 9954 | WEAPONLESS DEFENSE |  |
|  | INSTRUCTOR COURSE | 2 UNITS |
| AJ 9955 | OFFICER SAFETY: FIELD TACTICS |  |
|  | FOR UNIFORM ASSIGNMENTS | 1 UNIT |
| AJ 9956 | IMPACT WEAPONS |  |
|  | INSTRUCTOR UPDATE | 0.75 UNIT |
| AJ 9957 | BASIC S.W.A.T. | 1 UNIT |
| AJ 9959 | SURVIVAL SHOOTING |  |
|  | INSTRUCTORCOURSE | 1 UNIT |
| AJ 9960 | OFFICER SAFETY: FIELD TACTICS FOR |  |
|  | PLAINCLOTHES ASSIGNMENTS | 1 UNIT |
| AJ 9961 | OFFICER SAFETY: FIELD TACTICS FOR |  |
|  | UNIFORM ASSIGNMENTS | 1 UNIT |
| AJ 9962 | WEAPONLESS DEFENSE: |  |
|  | INSTRUCTOR UPDATE | 0.75 UNIT |
| AJ 9964 | POST CONTINUING PROFESSIIONAL | 1 UNIT |
|  | TRAINING |  |
| AJ 9965 | INTERNAL AFFAIRS INVESTIGATION | 1.5 UNITS |
| AJ 9966 | BASIC DEFENSE TACTICS | 2 UNITS |
| AJ 9967 | S.W.A.T. LEADERSHIP | 1 UNIT |
| AJ 9968 | ENHANCED BASIC S.W.A.T. | 2 UNITS |
| AJ 9969 | FIREARMS INSTRUCTOR | 2 UNITS |
| AJ 9971 | DYNAMIC CLEARING TACTICS | 2 UNITS |
| AJ 9972 | DELIBERATE CLEARING TACTICS | 2 UNITS |
| AJ 9973 | S.W.A.T. TEAM LEADER | 1 UNIT |
| AJ 9974 | TECHNIQUES OF TEACHING | 1 UNIT |
| AJ 9975 | TACTICAL COMMANDER | 1 UNIT |
| AJ 9976 | CANINE HANDLING | 1 UNIT |
| AJ 9977 | ADVANCED TEACHING TECHNIQUES | 1 UNIT |
| AJ 9978 | TACTICAL BREACHING | 2 UNITS |
| AJ 9979 | BASIC POLICE CYCLIST | 1 UNIT |
| AJ 9980 | BASIC SNIPER/OBSERVER | 1 UNIT |
| AJ 9981 | GROUND CONTROL WEAPONLESS |  |
|  | INSTRUCTORS COURSE | 1.5 UNITS |
| AJ 9982 | PATROL RIFLE INSTRUCTOR | 1.5 UNITS |
| AJ 9983 | ADVANCED SNIPER/OBSERVER | 0.5 UNIT |
| AJ 9984 | FIREARMS INSTRUCTOR UPDATE | 1 UNIT |
| AJ 9987 | BASIC S.W.A.T. | 2 UNITS |
| AJ 9988 | DYNAMIC CLEARING TACTICS | 0.75 UNIT |
| AJ 9989 | OFFICER SAFETY: FIELD TACTICS FOR |  |
|  | PLAINCLOTHES ASSIGMENTS | 0.5 UNIT |
| AJ 9990 | TACTICAL SHOTGUN OPERATOR | 0.5 UNIT |
| AJ 9991 | SUCMACHINE GUN OPERATOR | 1 UNIT |
| AJ 9992 | IMPACT WEAPON INSTRUCTOR | 2 UNIT |
| AJ 9994 | TACTICAL SHOTGUN INSTRUCTOR | 1.5 UNITS |
| AJ 9995 | PATROL RIFLE/CARBINE OPERATOR | 0.75 UNIT |

AJ 9996 SUBMACHINE GUN INSTRUCTOR<br>1 UNIT<br>AJ 9998 POST BASIC SUPERVISORY<br>4 UNITS<br>For complete description of these courses, see website: http://www.laspositascollege.edu/courseOutlines/AJ/index.php or contact: 925.424.1197

## ADMINISTRATIVE MEDICAL ASSISTANT


#### Abstract

About the Program The Administrative Medical Assistant Certificate Program provides students with the required knowledge to work in healthcare providers offices such as physicians' offices, ancillary healthcare providers such as physical therapy, laboratory, radiology, and a wide variety of other supportive healthcare agencies. Courses in this comprehensive program provide a broad foundation of computer skills, healthcare terminology, and medical office skills designed to acquaint students with the roles and responsibilities related to the healthcare field, medical office procedures, healthcare finance and insurance issues, and actual practice in the healthcare arena.


## Certificate of Achievement

Health Science 55 (Orientation to Health Care)$\ldots . .$.
Computer Information Systems 8 (Essential Computing Skills)... .....  2
Biology 50 (Anatomy and Physiology). .....  4
Business 43 (Professional Communication) or
Computer Information Systems 43 (Professional/Communication)....... 4 .....  4
Emergency Medical Services 61 (First Responder) ..... 2.5
Computer Information Systems 75 (Office Technology/ Communications).. .....  .1
Health Science 52 (Basic Medical Terminology for Allied Healthor Health Science 51A (Basic Medical Terminology)...3-4
Business 77 (Financial and Insurance Procedures for Medical Offices).. 3
Computer Information Systems 79 (Medical Office Procedures). .....  3
Business 96 (Business Work Experience Seminar or Internship 1(Internship Seminar). .1
and
Business 95 (Business Work Experience or Internship 2 (Internship FieldPlacement)1-3
Total units required26.5-29.5

## AMERICAN SIGN LANGUAGE

About the Program<br>The American Sign Language (ASL) program provides an introduction to the language of the Deaf, the Deaf Community, and Deaf Culture. The ASL classes emphasize conversational skills in functional situations and provide students an opportunity to explore, in a relaxed atmosphere, the language and culture of deafness.

# AMERICAN SIGN LANGUAGE (ASL) <br> ASL 1A AMERICAN SIGN LANGUAGE I <br> 3 UNITS <br> Introduction to American Sign Language (ASL), including expressive and receptive skills, the manual alphabet, facial expression, and body gestures. Emphasis on conversational skills in functional situations, knowledge of Deaf culture and the Deaf community. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; IGETC: Area 6 <br> Degree Applicable, Credit <br> Grading Option: GR 


#### Abstract

ASL 1B AMERICAN SIGN LANGUAGE II 3 UNITS Continued development of American Sign Language (ASL) receptive/ expressive skills and knowledge learned in American Sign Language 1A. Emphasis on conversational skills in functional situations, continued vocabulary and sentence structure expansion, and knowledge of Deaf culture and the Deaf community. Prerequisite: American Sign Language 1A (completed with a grade of "C" or higher). 3 hours lecture. AA/AS GE. Transfer: CSU, UC Degree Applicable, Credit Grading Option: GR


## ASL 2A AMERICAN SIGN LANGUAGE III 3 UNITS

Further development of American Sign Language (ASL) receptive/ expressive skills and knowledge learned in American Sign Language 1B. Emphasis on conversational skills in functional situations, continued vocabulary expansion and knowledge of Deaf culture and the Deaf community. Prerequisite: American Sign Language 1B (completed with a grade of " $C$ " or higher). 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: C2; IGETC: 3BC2; IGETC: 3B
Degree Applicable, Credit
Grading Option: GR

## ASL 2B AMERICAN SIGN LANGUAGE IV 3 UNITS

Further development of American Sign Language (ASL) receptive/ expressive skills and knowledge learned in American Sign Language 2A. Emphasis on conversational skills in functional situations, continued expansion of vocabulary and knowledge of Deaf culture and the Deaf community. Prerequisite: American Sign Language 2A (completed with a grade of " C " or higher). 3 hours lecture. Transfer: CSU, UC; CSU GE: C2; IGETC: 3B
Degree Applicable, Credit
Grading Option: GR

## ANATOMY (ANAT)

Anatomy 1 is one of many courses offered by the Biology Department. It fulfills various degree, certificate, transfer, and/or career requirements. For more details about how Anatomy 1 fits into different pathways, please see "Biology" in the catalog, page 60.

## ANAT 1 GENERAL HUMAN ANATOMY <br> 5 UNITS

Structure and function of the human body with emphasis on microscopic, gross, and developmental anatomy. Microscopic examination of normal and pathological tissues, and dissection, supplemented by use of charts, models, and computer assisted instruction. Prerequisite: Biology 31 (completed with a grade of " $C$ " or higher). Strongly recommended: Eligibility for English 1A. 3 hours lecture, 6 hours laboratory. AA/AS GE. AA/AS GE. Transfer: CSU, UC*; CSU GE: B2 \& B3; IGETC: 5B \& Lab; *Combined with BIOL 50 \& PHSI 1: max credit, 2 courses.

## ANTHROPOLOGY

## About the Program

Anthropology studies human beings from a holistic and crosscultural perspective. Encompassing every aspect of human existence, the subject matter of anthropology is traditionally divided into four fields: physical or biological anthropology, social or cultural anthropology, linguistics, and archaeology. A comparative science, its concerns include human genetic, cultural, and linguistic variation. Anthropologists uncover the prehistory of humanity as they help us to understand the problems of today. They are advocates of multiculturalism because they appreciate cultural diversity, an attribute which prepares them well for navigating the complexities of the 21st century world.

## Career Opportunities

As modern technology and business practices dissolve borders across the globe, the demand for anthropologists grows. Anthropologists inform public policy, manage development projects and work in the Foreign Service. They carry out market research, conduct public relations and become journalists, urban planners, medical researchers and park rangers. Anthropologists reveal the story of the past through genetic and archaeological research; they also use forensic science to determine the truths of today. Their skill set is applicable across a diverse set of research, development and policy-making opportunities throughout the corporate, non-profit, government and military sectors.

## Transferability

Las Positas College offers classes in the four sub-fields of anthropology to prepare students for third year entry into BA and BS programs. All courses articulate as lower-division units to CSU and UC. Some variation in requirements exists; therefore, it is essential that the student refer to the catalog of the prospective transfer institution and consult an academic counselor while preparing for transfer.

## ANTHROPOLOGY (ANTH)

ANTR 1 BIOLOGICAL/PHYSICAL ANTHROPOLOGY 3 UNITS
Humans as a biological species through an examination of the fossil evidence for human evolution, behavior of nonhuman primates, and human evolutionary biology and genetics. Emphasis on uniquely human biological and behavioral characteristics, as well as those shared with other animals. Current anthropological issues such as the biological meaning of race, genetic diseases, and the influence of evolution on human behavior. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: B2 or D1; IGETC 4A or 5B
Degree Applicable, Credit
Grading Option: OP

## ANTR 1L BIOLOGICAL/PHYSICAL ANTHROPOLOGY LABORATORY

Laboratory exercises developed as an adjunct to Anthropology 1 (Introduction to Physical/Biological Anthropology) including the identification of fossils through examination of fossil casts, the study of human artifacts, observation of primate behavior and structure, and problem solving in case studies of human genetics. Prerequisite: Anthropology 1 (may be taken concurrently). 3 hours laboratory. AA/AS GE Transfer: CSU, UC; CSU GE : B3; IGETC: 5B Lab Degree Applicable, Credit

Grading Option: OP

## ANTR 2 INTRODUCTION TO ARCHAEOLOGY: PREHISTORY AND CULTURE GROWTH 3 UNITS

Prehistoric development of human culture through studies of stone tools and other remains of the earliest human lifeways up to the growth of technologically advanced civilizations. Emphasis on modern archaeological theories and techniques for understanding cultural adaptation to different ecological conditions in the past. Review of important archaeological case studies. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: DI; IGETC: 4A
Degree Applicable, Credit
Grading Option: OP
ANTR 3 SOCIAL AND CULTURAL ANTHROPOLOGY 3 UNITS
How human beings in different cultures meet basic biological, social and cultural needs, including kinship and marriage practices, political and social organization, economic institutions, religious and childrearing practices, social change, as well as other aspects of cultural behavior. Emphasis on understanding other cultures on their own terms. Includes the many subcultures making up North American populations. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: DI; IGETC: 4A
Degree Applicable, Credit Grading Option: OP

## ANTR 4 LANGUAGE AND CULTURE

3 UNITS
The course is an introduction to the core concepts of linguistic anthropology and the study of language in culture and society, including how language perpetuates the identity of individuals through their social interactions and their culture in everyday speech events. Topics such as identity, social status, gender, race, and institutional power, are examined in contemporary language use. The course includes traditional study of the methods of linguistic anthropologists as well as the study of biological basis of communication and speech, the structure of language, language origins, language through time, language variation, the ethnography of communication, sociolinguistics, nonverbal communication and writing, and how cultural context sets meaning. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: DI; IGETC: 4A
Degree Applicable, Credit
Grading Option: OP
ANTR 5 CULTURES OF THE U.S. IN GLOBAL PERSPECTIVE3 UNITS
Issues relevant to understanding race, class, gender and ethnicity within the American setting. Historical, as well as contemporary situation of the following groups: 1) African Americans; 2) Native Americans; 3) Hispanic Americans; 4) European Americans; and, 5) Asian Americans, among other groups. Emphasis on analyzing the way that public understandings of culture and biology are translated into social policy. Contemporary social issues such as race relations, multiculturalism, affirmative action, bilingual education, and the use and abuse of I.Q. testing. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: DI; IGETC: 4A
Degree Applicable, Credit
Grading Option: OP
ANTR 12 MAGIC, RELIGION, WITCHCRAFT, AND HEALING3 UNITS
Cross-cultural perspectives on spirituality, religious practice, myth, ancestor beliefs, witchcraft and the variety of religious rituals and practitioners found in the cultures of the world. Examination of the cosmologies of different cultures through the anthropological perspective. Emphasis is placed on how knowledge of the religious practices and beliefs of others can help us to understand the multicultural world in which we live. Comparison of the ways in which diverse cultures confront the large and fundamental questions of existence: those dealing with the meaning of life, birth and death, and with the relationship of humans to each other and to their universe. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: DI; IGETC: 4A Degree Applicable, Credit

Grading Option: OP

## ANTR 13 INTRODUCTION TO FORENSIC ANTHROPOLOGY

3 UNITS
An introductory course in the application of physical anthropology to the medico-legal process with an emphasis on the identification of human skeletal remains. Includes basic human osteoology and odontology, assessment of age at time of death, sex, ancestry, trauma analysis, pathology, and general physical characteristics including height and weight based upon minimal skeletal remains. Estimation of time since death, crime scene analysis, animal scavenging, and identification procedures. 3 hours lecture. AA/AS GE. Transfer: CSU, UC.
Degree Applicable, Credit
Grading Option: OP

## APPRENTICESHIP

## About the Program

Las Positas College Apprenticeship Program provides students related classroom instruction for those who are interested in trade apprenticeship. This partnership between the college and employers provides applied job skills and job training while taking quality courses. Some apprenticeship programs are also designed to assist students who desire to earn a certificate or degree (Associate in Arts or Associate in Science).

## Current apprenticeships include:

- Automotive (APAU)
- Carpentry (APCA)
- Millwrights (APMW)
- Pile Drivers (APPD)


## ART

## ART (ARTS) <br> ART HISTORY (ARHS)

## DEGREE

## About the Program

Students who elect to major in the field of art have a variety of opportunities open to them. Choices include careers in teaching, art criticism, or work as practicing artists in painting and drawing.

See also: Photography, Visual Communications

## Degrees/Certificates

- Degree:
- AA - Art (Emphasis in Painting)


## Career Opportunities

The Art (Painting) major offered by Las Positas College provides a secure foundation for the student. Courses in the Art department are designed to fulfill the needs of Art majors, as well as those whose interest is avocational or recreational.

## Transferability

This program fulfills typical lower-division requirements at four-year transfer institutions. Some variation in requirements may exist at a particular four-year college or university; therefore, it is essential that the student refer to the catalog of the prospective transfer institution and consult a counselor.
AA - Art - Emphasis in Painting
Freshman Year
Art 2A (Introduction to Drawing). .....  3
Art 2B (Drawing, Color and Composition) .....  3
Art 12A (Oil/Acrylic Painting- Beginning I). .....  3
Art 12B (Oil/Acrylic Painting- Beginning II) .....  3
Art 3A (Figure and Composition I) ..... 3
Art 1 (Introduction to Art). .....  3
General Education Courses
Sophomore Year
Art 4 (Art History: Ancient) .....  3
Art 5 (Art History: Renaissance to Modern) .....  3
Art 12C (Oil/Acrylic Painting- Advanced I). .....  3
Art 12D (Oil/Acrylic Painting- Advanced II). .....  3
Art 3B (Figure and Composition II).. .....  3
Art 10 (Design and Materials) .....  3
Art 7A (Introduction to Watercolor Painting) .....  3
General Education Courses60

## ART (ARTS)

## ARTS 2A INTRODUCTION TO DRAWING 3 UNITS

Skills development in light and shade composition, perspective, and other basics. The use of pencil, charcoal, and/or ink. 2 hours lecture, 4 hours studio. AA/AS GE. Transfer: CSU, UC; CSU GE: C1
Degree Applicable, Credit Grading Option: OP
ARTS 2B DRAWING AND COMPOSITION
3 UNITS
Development of knowledge and skills introduced in Art 2A,
emphasizing media and composition and introducing the use of color. Prerequisite: Art 2A (completed with a grade of " C " or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

ARTS 3A FIGURE AND COMPOSITION I
3 UNITS
Skill development drawing the figure with charcoal, conte or pastel, pencil, and ink with emphasis on composition. Strongly recommended: Art 2A. 2 hours lecture, 4 hours studio. AA/AS GE. Transfer: CSU, UC; CSU GE: Cl
Degree Applicable, Credit Grading Option: OP

## ARTS 3B FIGURE AND COMPOSITION II <br> 3 UNITS

Development of knowledge and skills introduced in Art 3A, emphasis on composition and color. Prerequisite: Art 3A (completed with a grade of "C" or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC Degree Applicable, Credit

Grading Option: OP

ARTS 3C FIGURE AND COMPOSITION III
3 UNITS
Development of knowledge and skills introduced in Art 3B, emphasis on composition and color. Prerequisite: Art 3B (completed with a grade of " $C$ " or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP


#### Abstract

ARTS 3D FIGURE AND COMPOSITION IV 3 UNITS Development of knowledge and skills introduced in Art 3C. Drawing the figure with charcoal, conte, graphite, ink, watercolor, pastels, tempera and oils with emphasis on composition and color. Prerequisite: Art 3C (completed with a grade of "C" or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC Degree Applicable, Credit Grading Option: OP


ARTS 7A INTRODUCTION TO

## WATERCOLOR PAINTING

3 UNITS
Materials, methods, and techniques of transparent watercolor painting, including its effects and possibilities. Strongly Recommended: Art 2A and Art 2B. 2 hours lecture, 4 hours studio. Transfer: CSU, UC Degree Applicable, Credit

Grading Option: OP
ARTS 7B WATERCOLOR PAINTING
3 UNITS
Development of knowledge and skills introduced in Art 7A. Emphasis on experimenting with the watercolor medium leading to development of individual methods of expression. Prerequisite: Art 7A (completed with a grade of " $C$ " or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP
ARTS 7C ADVANCED WATERCOLOR: PAINTING I 3 UNITS
Development of knowledge and skills introduced in Art 7B directed toward individualized needs. Prerequisite: Art 7B (completed with a grade of "C" or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP
ARTS 7D ADVANCED WATERCOLOR PAINTING II 3 UNITS
Development of knowledge and skills introduced in Art 7C directed toward individualized needs. Prerequisite: Art 7C (completed with a grade of "C" or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP
ARTS 10 DESIGN AND MATERIALS

## 3 UNITS

Introduction to the basic elements of design: line, texture, value, shape, color, light, and spatial concepts. Experimentation with paper, cardboard, cloth, etc. Emphasis on two-dimensional design. 2 hours lecture, 4 hours studio. AA/AS GE. Transfer: CSU, UC; CSU GE: C1 Degree Applicable, Credit

Grading Option: OP
ARTS 11 DESIGN, MATERIALS, AND COLOR 3 UNITS
Color theory as it applies to two and three dimensional design. 2 hours lecture, 4 hours studio. Transfer: CSU, UC; CSU GE: C1
Degree Applicable, Credit
Grading Option: OP
ARTS 12A OIL/ACRYLIC PAINTING: BEGINNING I 3 UNITS
Beginning projects in oil painting with an emphasis on fundamental painting techniques and approaches. Strongly Recommended: Art 2A. 2 hours lecture, 4 hours studio. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP
ARTS 12B OIL/ACRYLIC PAINTING: BEGINNING II 3 UNITS
Projects in oil or acrylic painting with an emphasis on fundamental painting techniques and approaches. Prerequisite: Art 12A (completed with a grade of "C" or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP
ARTS 12C OIL/ACRYLIC PAINTING: ADVANCED I 3 UNITS
Advanced projects in oil or acrylic painting with emphasis on individual creative work and development of personal ideas and style. Prerequisite: Art 12B (completed with a grade of "C" or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

ARTS 12D OIL/ACRYLIC PAINTING: ADVANCED II 3 UNITS
Advanced projects in oil or acrylic painting with emphasis on
individual creative work and development of personal ideas and style. Prerequisite: Art 12C (completed with a grade of " $C$ " or higher). 2 hours lecture, 4 hours studio.Transfer: CSU, UC
Degree Applicable, Credit Grading Option: OP

## ARTS 13A ACRYLIC PAINTING: BEGINNING I 3 UNITS

Projects in acrylic painting with an emphasis on fundamental painting techniques. Strongly Recommended: Art 2A. 2 hours lecture, 4 hours studio. Transfer: CSU, UC
Degree Applicable, Credit Grading Option: OP
ARTS 13B ACRYLIC PAINTING: BEGINNING II 3 UNITS Projects in acrylic painting with an emphasis on fundamental painting techniques. Prerequisite: Art 13A (completed with a grade of "C" or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC Degree Applicable, Credit Grading Option: P/NP

ARTS 13C ACRYLIC PAINTING: ADVANCED I 3 UNITS
Advanced projects in acrylic painting with emphasis on individual creative work and development of personal ideas and style.
Prerequisite: Art 13B (completed with a grade of "C" or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: P/NP
ARTS 13D ACRYLIC PAINTING: ADVANCED II 3 UNITS
Advanced projects in acrylic painting with emphasis on individual creative work and development of personal ideas and style.
Prerequisite: Art 13C (completed with a grade of "C" or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

## ART HISTORY (ARHS)

## ARHS 1 INTRODUCTION TO ART 3 UNITS

Architecture, sculpture, painting, photography and design in relation to human inventiveness in providing for material and aesthetic needs; orientation to contemporary and historic art forms and principles. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: Cl; IGETC: Area 3A Degree Applicable, Credit

Grading Option: OP

## ARHS 4 ART HISTORY: ANCIENT

## 3 UNITS

History of Western art from prehistoric times through Egyptian, Mesopotamian, Aegean, Greek, Etruscan, Roman, Early Christian, Byzantine, Medieval, Romanesque, and Gothic civilizations. 3 hours.
AA/AS GE. Transfer: CSU, UC; CSU GE: C1; IGETC: 3A
Degree Applicable, Credit
Grading Option: OP
ARHS 5 ART HISTORY: RENAISSANCE TO MODERN 3 UNITS History of Western art from Early Renaissance, High Renaissance, Mannerism, Baroque, Neoclassicism, Romanticism, Realism, Impressionism, Post-Impressionism, 20th Century developments of American art. 3 hours. AA/AS GE. sTransfer: CSU, UC; CSU GE: Cl; IGETC: 3A
Degree Applicable, Credit
Grading Option: OP
ARHS 6 MUSEUM AND GALLERY TECHNIQUES 3 UNITS
An examination of the methodology and technique of displaying visual art within a museum/gallery space. Opportunities to meet artists from the Bay Area and beyond, learn the meaning behind their artwork, and gain hands-on practice in a range of activities covering the presentation, handling, and security of original artwork in the LPC Center for the Arts Gallery. 2 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## ASTRONOMY


#### Abstract

About the Program The Astronomy program offers introductory courses for students wishing to satisfy the Natural sciences requirement for an Associate degree and／or transfer to a four year institution．Course offerings include two separate lecture classes．One is on the origin，evolution， and composition of the solar system，with special emphasis on the earth in relation to other celestial bodies．The other class centers on Stars，Galaxies，and Cosmology，focusing on the relationship of the Solar System to the grand scale of the Universe．The history of Astronomy，astronomical tools and technology，and the search for extrasolar planets and life beyond the Earth are also part of the astronomy curriculum．A laboratory course familiarizing students with the night sky，use of telescopes，digital imaging，and spectroscopy is also offered．


## Career Opportunities

Teaching，Research，Public Outreach，Industrial Technology，Energy， Environmental Science，Consulting，Remote Sensing．

## Transferability

All astronomy lecture courses are fully transferable to four－year universities and meet physical and natural science requirements． In addition，a 1－unit laboratory course meets the physical science laboratory requirement for both transfer and the Associate degree at Las Positas College

## ASTRONOMY（ASTR）

## ASTR 1 PRINCIPLES OF ASTRONOMY

 AND ASTROPHYSICS3 UNITS
Includes planets，their motions，the sun and stars，stellar structure and evolution，black holes，galaxies，and cosmology．A companion science laboratory，Astronomy 30 is available．Strongly Recommended： Mathematics 36 or Mathematics 38 and Physics 2A，8A or 10.3 hours lecture．AA／AS GE．Transfer：CSU，UC；CSU GE：B1；IGETC：5A．
Degree Applicable，Credit
Grading Option：OP

## ASTR 10 INTRODUCTION TO ASTRONOMY： THE SOLAR SYSTEM

3 UNITS
Introduction to history and physical principles of astronomy，focusing on our Solar System．Includes view of heavens，historical development of scientific models of the sky，telescopes，formation and evolution of the solar system，and the possibilities for life in space．Designed for non－majors in mathematics or physical science．A companion science laboratory，Astronomy 30，is also available． 3 hours lecture．AA／AS GE． Transfer：CSU，UC＊；CSU GE：BT；IGETC：5A．＊No UC credit for ASTR 10 or 20 if taken after ASTR 1.
Degree Applicable，Credit
Grading Option：OP

## ASTR 20 INTRODUCTION TO ASTRONOMY： STARS AND THE UNIVERSE

3 UNITS
Introduction to the study of stars，galaxies，and cosmology．Includes the nature of light，telescopes，spectroscopy，stellar formation and evolution，galaxies，quasars，and cosmology．Designed for non－majors in mathematics or a physical science．A companion science laboratory， Astronomy 30，is also available． 3 hours lecture．AA／AS GE．Transfer： CSU，UC＊；CSU GE：B1；IGETC：5A．＊No UC credit for ASTR 10 or 20 if taken after ASTR 1.
Degree Applicable，Credit
Grading Option：OP

ASTR 30 INTRODUCTION TO ASTRONOMY LABORATORY

1 UNIT
Introduction to laboratory principles and techniques in astronomy． Includes telescope operation and measuring stellar magnitudes，spectral lines，motions of the sun，moon and planets．Prerequisite：Astronomy 1， 10，or 20 （May be taken concurrently）．2－3 hours laboratory．AA／AS GE． Transfer：CSU，UC；CSU GE：B3；IGETC：5A Lab
Degree Applicable，Credit
Grading Option：OP

# AUTOMOTIVE TECHNOLOGY 

## －degree－certificate

## About the Program

Automotive technicians are in high demand in California and throughout the U．S．but there is a lack of trained professionals to meet this demand．This shortage of well－trained technicians has been caused by advances in computerized engine controls，evolving emissions regulations，and development of alternative technologies driven by the ever－escalating cost of fuel．The Las Positas College Automotive Technology program can provide the skills necessary to qualify as trained entry－level technicians，as well as for career advancement．Students work side by side and hands－on with industry professionals in a fully equipped and up－to－date facility．

## Degrees／Certificates

－Degrees：
－AS－Automotive Electronics Technology
－Certificates：
－Automotive Service Technician
－Automotive Technician
－California Smog Program

## Career Opportunities

Las Positas College offers both the Associate degree and Certificate programs designed for direct job entry，which will give the student a thorough and complete knowledge of the basics of the modern automobile．These programs are for technical career majors．The Las Positas College Automotive program also provides training and services in a variety of programs in addition to regular classes： industry－standard training for General Motors，AC Delco and other manufacturers；Automotive Apprenticeship；Smog Certification； Alternative Fuels；State of California Bureau of Automotive Repair Smog Inspection Referee Program．These additional programs provide our students with numerous opportunities for industry exposure． Career opportunities include Teaching，Automotive Technician， Automotive Parts Personnel．

## Transferability

While units in this program are transferable to many institutions， students should consult a counselor for information．Students desiring to complete the Associate in Science degree in Automotive Technology within a two－year time－frame should plan ahead because not all classes are offered every semester．

AS - Automotive Electronics Technology<br>Freshman Year<br>Automotive Technology 55 (Automotive Service) . 3.5<br>Automotive Technology 61A (Fuel Induction, Emission and Computer Control Systems I)<br>.... 4<br>Automotive Technology 61B (Fuel Induction, Emission and Computer Control Systems II) 4<br>Automotive Technology 60A (Automotive Electrics/Electronics I)...... 4 Automotive Technology 60B (Automotive Electrics/Electronics II)..... 4 Automotive Technology 62 (Automotive Air Conditioning, Cooling and Heating Systems).<br>Courses ${ }^{\text {§ }}$

Sophomore Year
Automotive Technology 67A (Advanced Diagnosis and Troubleshooting of Automotive Systems) $\qquad$
Automotive Technology 67B (Advanced Diagnosis and Troubleshooting of Automotive Systems)3

Automotive Technology 65 (Automotive Brake and Safety ...................... 3
Automotive Technology 66 (Automotive Steering and Suspension Systems).. 3

General Education Courses ${ }^{\S}$
Total units required.60
§Program-based General Education requirement: Mathematics 71 (Applied Mathematics for Technicians)..

Recommended Electives
Welding Technology 70
Computer Information Systems 43
Business 43
Speech 10 (meets a General Education requirement)

## Certificate of Achievement <br> Automotive Service Technician

Automotive Technology 55 (Automotive Service) 3.5 Automotive Technology 60A (Automotive Electrics/Electronics I)......... 4 Automotive Technology 60B (Automotive Electrics/Electronics II)......... 4 Automotive Technology 61A (Fuel Induction, Emission and Computer Control Systems I). $\qquad$
Automotive Technology 61B (Fuel Induction, Emission and Computer Control Systems II). $\qquad$ Automotive Technology 73 (Reading Automotive Service Manuals) ......... 3 Total units required ........................................................................................ 22.5

## Certificate of Achievement Automotive Technician

Automotive Technology 55 (Automotive Service)...................................... 3.5 Automotive Technology 60A (Automotive Electrics/Electronics)........ 4 Automotive Technology 60B (Automotive Electrics/Electronics II)..... 4

Automotive Technology 61A (Fuel Induction, Emission and Computer Control Systems I). $\qquad$ Automotive Technology 61B (Fuel Induction, Emission and Computer Control Systems II). $\qquad$ Automotive Technology 62 (Automotive Air Conditioning, Cooling and Heating Systems). Automotive Technology 65 (Automotive Automotive Technology 66 (Automotive Steering and Suspension Systems)..
$\qquad$ ..................................................................................... 3 ... 3
Automotive Technology 67A (Advanced Diagnosis and Troubleshooting of Automotive Systems)........................................................................................... 4
Automotive Technology 67B (Advanced Diagnosis and Troubleshooting of Automotive Systems). ... 4

Total units required. 36.5
Career Certificate ${ }^{\text {§ }}$
California Smog Program
Automotive Technology 70A (Basic Clean Air Course)................. 3.5 units Automotive Technology 70B (Enhanced Clean Air Car Course). .... 1.5 units Automotive Technology 71A (Automotive Electrical and Electronic Systems).. ..1.5 units
Automotive Technology 71B (Engine Performance Systems)........ 1.5 units Automotive Technology 71C (Advanced Engine Performance Systems). ... 1.5 units Automotive Technology 99.70 (Current Smog Update Class).... 0.5 units
Total. 10.0 units
${ }^{\text {This certificate is not transcripted. This group of courses provides industry-based }}$ professional development. Individual courses will appear on transcript. See a counselor for further information.

## AUTOMOTIVE TECHNOLOGY (AUTO)

AUTO 55 AUTOMOTIVE SERVICE 3.5 UNITS
Bumper to Bumper Automotive Knowledge. Starting with hazardous waste handling, tool identification, maintenance and lubrication, moving into engine mechanical, emissions controls, suspension systems, air conditioning, airbags and safety, transmissions, axles, and finishing off with the future of the automotive industry. This is an introductory class for people who want to know more about their vehicle or who are planning an automotive career. 2.5 hours lecture, 3 hours laboratory. Transfer CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## AUTO 56 AUTOMOTIVE LABORATORY <br> 2 UNITS

Automotive Lab is an open laboratory class for basic and advanced automotive students. This class is for students desiring to expand their hands-on experience using their own vehicle. Instructor will provide technical and supervisory support to guide students in completion of their self initiated projects. Service information via computer service manuals will be available for students to use for vehicle information and research. Prerequisite: Automotive Technology 55 (may be taken concurrently). 6 hours laboratory. (May be taken 4 times)
Degree Applicable, Credit Grading Option: OP

## AUTO 60A AUTOMOTIVE ELECTRICS/ELECTRONICS I 4 UNITS

 Automotive electrical/electronic systems, including electrical circuits, ohms law, battery, starting, charging, ignition, fuel, accessories, and wiring systems. Emphasis on diagnosis of electrical troubles, assembly, and repair of components and diagnostic equipment usage. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: Automotive Technology 55 (May be taken concurrently). 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times) Degree Applicable, CreditGrading Option: OP

## AUTO 60B AUTOMOTIVE ELECTRONICS

4 UNITS
Continuation of Automotive Technology 60A with emphasis on diagnosis and repair of electrical/electronic components including computer controlled circuits/systems using schematics, diagnostic procedures, and equipment; and repair. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: Automotive Technology 60A (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## AUTO 61A AUTOMOTIVE FUEL INDUCTION, EMISSION COMPUTER CONTROL SYSTEMS I <br> 4 UNITS

Principles of automotive fuel induction, ignition and emission control systems, including inspection, diagnosis and repair of fuel and emission control systems/components governed by federal and state laws and standards. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: Automotive Technology 55 (May be taken concurrently). 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## AUTO 61B AUTOMOTIVE FUEL INDUCTION, EMISSION COMPUTER CONTROL SYSTEMS II <br> 4 UNITS

Continuation of Automotive Technology 61A with emphasis on emission control, fuel injection and computer control systems. Includes software/hardware concepts and applications, sensors and control circuits, diagnosis and repair of systems and components. Strong 5 gas analysis will be studied. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: Automotive Technology 61A (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## AUTO 62 AUTOMOTIVE AIR CONDITIONING,

COOLING AND HEAT SYSTEMS HVAC
3 UNITS
Diagnosing, evaluation, testing, adjustment, and repair of heating, ventilation and air conditioning (HVAC). Includes heat and energy, psychometrics, air flow, refrigerant recycling, equipment and controls. Student will be prepared to pass a nationally recognized HAVC certificate program, required by all California HVAC repair shops. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: Automotive Technology 55 (May be taken concurrently). 2 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

AUTO 64 ALTERNATIVE FUEL SYSTEMS 4 UNITS
A study in the history, current and future of alternative fuels in the automotive industry. Emphasis in shop safety, hazardous waste handling, high voltage electrical precautions, basic engine construction of hybrids, battery storage systems, fuel storage systems, compressed natural gas, liquid propane gas, bio-diesel and hydrogen cell technology. A term paper will be required for completion of the class. Students are strongly recommended to enroll in Automotive Lab concurrently. Prerequisite: Automotive Technology 55 (May be taken concurrently). 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

AUTO 65 AUTOMOTIVE BRAKE AND SAFETY INSPECTION

3 UNITS
Diagnosis, evaluation, inspection, adjustment, and repair of safety equipment, braking and antilock braking systems and related devices. Class will involve California State law regarding brake and safety inspections. Includes the material on the California Brake Adjuster's Licensing Examination. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: Automotive Technology 55 (May be taken concurrently). 2 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

AUTO 66 AUTOMOTIVE STEERING AND SUSPENSION

3 UNITS
Diagnosis, evaluation, testing, adjustment, and repair of steering and suspension systems. Including all common automotive steering and suspension systems both car and truck. Future systems will also be covered. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: Automotive Technology 55 (May be taken
concurrently). 2 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## AUTO 67A ADVANCED DIAGNOSIS AND TROUBLESHOOTING

 OF AUTOMOTIVE SYSTEMS 4 UNITSContinuation of Automotive Technology 60B and 61B with an emphasis on diagnosis of electronic problems including computer controlled circuits/systems using schematics, diagnostic procedures and equipment. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisites: Automotive Technology 60B and Automotive Technology 61B (both completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## AUTO 67B SPECIAL ADVANCED DIAGNOSIS AND TROUBLESHOOTING OF AUTOMOTIVE SYSTEMS 4 UNITS

Continuation of Automotive Technology 67A and 61B with an emphasis on diagnosis of complex electronic problems in computer controlled systems. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: Automotive Technology 67A. 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## AUTO 69 AUTOMOTIVE TESTING AND DIAGNOSIS <br> 4 UNITS

Inspection, diagnosis and repair of connected and related components, and malfunctioning parts; replacing and adjusting components for maximum efficiency and emission standards. Students are strongly recommended to enroll in Automotive Lab concurrently. Prerequisites: Automotive 60B and 61B (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

AUTO 70A BASIC CLEAN AIR CAR COURSE
3.5 UNITS

This course covers the basic understanding of vehicle emissions systems including their computers and how to identify and diagnose them effectively. This course will also cover advanced diagnostic and repair procedures on 2nd Generation On Board Diagnostic (OBD II vehicles using the latest electronic interface diagnostic equipment as well as rules and regulations in the revision of the Smog Check Manual. This course is a combination of the previous Basic Clean Air Car Course, the 2003 Update Course, and the OBD II Update Course. Industry Advisory: In order to be eligible to take the State Licensing Exam at completion of the course/program, students must also have one-year trade experience in engine performance/ emissions, or 9 semester units ( 13 quarter units) in Automotive Technology, or 180 hours at an accredited automotive school. 2.5 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## AUTO 70B ENHANCED CLEAN AIR CAR COURSE <br> 1.5 UNITS

This course covers the operating procedures of the BAR-97 dynamometer smog testing equipment and procedures as well as advanced diagnostic and repair procedures to repair vehicles that fail the loaded mode emission test. Industry Advisory: Successful completion of the Basic Clean Air Car Course is required to enroll in this class. In order to be eligible to take the State Licensing Exam at completion of the course/program, students must also have one-year trade experience in engine performance/emissions, or 9 semester units ( 13 quarter units) in Automotive Technology, or 180 hours at an accredited automotive school. 1 hour lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## AUTO 71A AUTOMOTIVE ELECTRICAL AND ELECTRONIC SYSTEMS

1.5 UNITS

This is a Bureau of Automotive Repair approved alternative to the ASE A-6 certification required for obtaining and maintaining smog technician licenses. This course focuses on diagnosis and repair of automotive electrical and electronic systems. The course is designed to help the student understand how electricity works in today's modern automobile. Industry Advisory: Students entering the course are expected to have a firm background in automotive engine theory and operation. In order to be eligible to take the State Licensing Exam at completion of the course/program, they must also have one year trade experience in engine performance/emissions, or 9 semester units ( 13 quarter units) in Automotive Technology, or 180 hours at an accredited automotive school. 1 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

AUTO 71B ENGINE PERFORMANCE SYSTEMS
1.5 UNITS

This is a Bureau of Automotive Repair approved alternative to the ASE A-8 certification required for obtaining and maintaining smog technician licenses. This course focuses on basic engine theory and testing, smog cause and effect, fuel systems, emission control systems, computerized engine control systems, ignition systems, and diagnostics. Industry Advisory: Students entering the course are expected to have a firm background in automotive engine theory and operation. In order to be eligible to take the State Licensing Exam at completion of the course/program, they must also have one year trade experience in engine performance/emissions, or 9 semester units ( 13 quarter units) in Automotive Technology, or 180 hours at an accredited automotive school. 1 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## AUTO 71C ADVANCED ENGINE PERFORMANCE

 SYSTEMS1.5 UNITS

This is a Bureau of Automotive Repair approved alternative to the ASE L-1 certification required for obtaining and maintaining smog technician licenses. This course focuses on systematic diagnosis and repair of drivability and emissions problems. Students will gain an indepth understanding of compression, ignition, fuel, air, and vacuum as well as a good working knowledge of diagnostic procedures involved in diagnosing and repairing computer controlled engines. Industry Advisory: Successful completion of the Basic Clean Air Car Course is required to enroll in this class. In order to be eligible to take the State Licensing Exam at completion of the course/program, students must also have one-year trade experience in engine performance/emissions, or 9 semester units ( 13 quarter units) in Automotive Technology, or 180 hours at an accredited automotive school. 1.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## AUTO 72A POWERTRAINS: ENGINES AND TRANSMISSIONS

4 UNITS
Part one of an in-depth study of engine, transmission, rear axle, front axle, and transfer cases: mechanical, measurement, and assembly. An in-depth study of the above mentioned components including theory, teardown, evaluate, qualifying, and rebuilding. This class' emphasis is on engines and transmissions. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: Automotive Technology 55 (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## AUTO 72B POWERTRAINS: TRANSFER CASE, FRONT AND REAR AXLES

4 UNITS
Part two of an in-depth study of engine, transmission, rear axle, front axle, and transfer cases: mechanical, measurement, and assembly. An in-depth study of the above mentioned components including theory, teardown, qualifying, and rebuilding. Class emphasis is on rear axles, front axles and transfer cases. Students are encouraged to enroll in Automotive Laboratory concurrently. Prerequisite: Automotive Technology 55 (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit Grading Option: OP

## AUTO 72C POWERTRAINS: MODIFICATION FOR PERFORMANCE

4 UNITS
An in-depth study of engine and transmission modification in order to gain performance. This class will explain the differences in laws governing fifty state vehicles and those registered in California. How to gain performance legally and the penalties of breaking the law is also covered. Students will know the benefit versus cost of bolt-on performance products and major engine or transmission modification. NOTE: Some modifications are intended for off-road applications only. Students are encouraged to enroll in Automotive Laboratory concurrently. Prerequisite: Automotive Technology 55 (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory.
Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit Grading Option: OP

## AUTO 99 SELECTED TOPICS IN

## AUTOMOTIVE TECHNOLOGY

0.3-3 UNITS

Designed to explore special interest subjects drawn from the field of Automotive Technology. Emphasis will be on topics of practical use to automotive technicians as well as for persons employed in the automotive industry. Prerequisite may vary for specific topics. 3-9 hours. Transfer: CSU (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

## BIOLOGY

## DEGREE

## About the Program

The Biology Program provides an array of degrees, transfer pathways, and courses in the life sciences to meet the educational and careertechnical needs of our community. Program tracks are available for students seeking transfer, an AA degree, and fulfillment of pre-requisites for professional pathways (e.g., medicine, dentistry, veterinary, pharmacy, and optometry) and Allied Health pathways (e.g., nursing, dental hygiene, radiology, surgical technician, kinesiology, physical therapy, occupational therapy, emergency medical technician, paramedic, medical assisting, and health information technology). Various courses satisfy requirements for AA/AS degrees and certificates in other fields (e.g., Horticulture, Physical Education, Psychology, Viticulture/Enology) and for general education.

Biologists study the basic principles and processes of living organisms at multiple levels from molecular, cellular, and genetic, to organismal, ecological, and evolutionary. Coursework in the transfer and pre-professional pathways, and for the AA - Biology, develops understanding of these fundamental concepts and experience with standard laboratory techniques and experimental approaches.

Coursework in the Allied Health pathways and for the AA - Biology (Emphasis in Allied Health) provides students with a conceptual understanding of human anatomy and physiology at the molecular, cellular, and organ system level, and of microbiology, demonstrating the critical importance of microbes to human health and disease.

## For classes in:

- Anatomy (see page 53)
- Botany (see page 62)
- Ecology (see page 92)
- Microbiology (see page 128)
- Physiology (see page 143)
- Zoology (see page 164)


## Degrees/Certificates

- Degrees:
- AA - Biology
- AA - Biology (Emphasis in Allied Health)


## Career O pportunities

Careers opportunities in the life sciences are available in academic, industrial, government, and non-profit settings. These include professional and career-technical jobs in health care; biotechnology and bioinformatics; research and manufacturing; teaching; natural resources stewardship and management; public policy, consulting, and management; and organizations such as museums, parks, aquaria, and zoos. Biologists often specialize depending on approach and expertise, e.g., molecular biologists, microbiologists, geneticists, ecologists, and naturalists. Preparation for some entry-level jobs in these and other areas generally requires a bachelor's degree in biology. Career opportunities in Allied Health fields include nursing, dental hygiene, radiology, surgical technician, radiology, kinesiology, physical therapy, occupational therapy, emergency medical technician, paramedic, medical assisting, and health information technology programs.

## Transferability

The AA - Biology fulfills typical lower-division requirements at fouryear transfer institutions. Completion of this degree also provides entry-level opportunities for laboratory technicians in industrial and academic settings. Some variation in requirements may exist at a particular college or university; therefore, it is essential that students defer to the prospective transfer institution and consult with a counselor.

The AA - Biology (Emphasis in Allied Health) provides students with a marketable degree while pursuing their career objectives. This degree may be advantageous when applying to highly competitive Allied Health programs.
AA - Biology
The AA - Biology degree provides courses that are required for students majoring in the biological sciences to transfer to four-year universities. These include students who intend to enter postbaccalaureate programs in the biological sciences or professional training programs such as medical, dental, pharmacy, veterinary, and optometry schools.
Freshman Year
Botany 1* (General Botany)
Zoology 1 (General Zoology). 5
Chemistry 1A (General College Chemistry) .....  5
Chemistry 1B (General College Chemistry). .....  5
General Education Courses
Sophomore Year
Biology 1** (Introduction to Cell Biology) .....  5
Physics 2A* (Introduction to Physics I). .....  4
Physics 2B** (Introduction to Physics II) .....  4
General Education Courses
Total units required ..... 60
*Fall only **Spring only
AA - Biology - Emphasis in Allied Health
The AA - Biology (Emphasis in Allied Health) degree provides coursesthat are required for students entering nursing school or otherprograms in Allied Health fields such as dental hygiene, radiology,surgical technician, kinesiology, physical therapy, occupationaltherapy, emergency medical technician, paramedic, medical assisting,and health information technology.
Freshman Year
Anatomy 1 (General Human Anatomy). .....  5
Chemistry 30A (Introductory and Applied Chemistry I .....  4
Chemistry 30B (Introductory and Applied Chemistry II) .....  4
General Education Courses
Sophomore Year
Microbiology 1 (Microbiology). .....  5
Physiology 1 (Human Physiology). .....  5
General Education Courses
Total units required60
BIOL 1 GENERAL BIOLOGY ..... 5 UNITSBasic principles of biology with emphasis on the experimentalapproach to solving modern problems in biology. Includes cellphysiology, biochemistry, molecular genetics, DNA and evolution.Prerequisite: Zoology 1 or Botany 1 (completed with a grade of " C "or higher). Strongly recommended: Chemistry 1B or concurrentenrollment; Physics 2A or concurrent enrollment, and eligibility forEnglish 1A. 3 hours lecture, 6 hours laboratory. AA/AS GE. Transfer:CSU, UC; CSU GE: B2, B3; IGETC: 5B \& LabDegree Applicable, Credit
Grading Option: GR
BIOL 5 MARINE BIOLOGY ..... 4 UNITSOcean as a habitat, the organisms that inhabit marine waters, theirecology, adaptations and evolution, and the role of the ocean in theecology of the biosphere. 3 hours lecture, 3 hours laboratory. AA/ASGE. Transfer: CSU, UC; CSU GE: B2, B3; IGETC: 5B \& LabDegree Applicable, CreditGrading Option: OP
BIOL 10 INTRODUCTION TO THE SCIENCE OF BIOLOGY

Basic principles of biology, dealing with the nature of living things, and the nature of scientific investigation and its bioethical impact in our modern world. Designed for non-majors in biology biomedical sciences. 3 hours lecture, 3 hours laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B2, B3; IGETC: 5B \& Lab. *BIOL 10 and 31 combined: max UC credit, one course.
Degree Applicable, Credit
Grading Option: OP
BIOL 20 CONTEMPORARY HUMAN BIOLOGY 3 UNITS
A study of the Human organism, beginning at the cellular level, emphasizing organ systems, and also including topics of genetics and biotechnology. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: B2; IGETC 5B
Degree Applicable, Credit
Grading Option: OP

BIOL 31 INTRODUCTION TO COLLEGE BIOLOGY 4 UNITS
Basic principles of biology. Cell structure and function, cell division, cell metabolism, reproduction, genetics, taxonomy, origin of life, and evolution. Laboratory emphasis on developing various laboratory skills, using the metric system, collecting data, graphing, interpreting data, and preparing for and taking laboratory exams. Designed to prepare the necessary concepts and laboratory skills and experience that are needed to succeed in more advanced courses in biology. Strongly recommended: Math 65 or 65B or 65Y and eligibility for English 1A. 3 hours lecture, 3 hours laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B2, B3; IGETC: 5B \& Lab. *BIOL 10 and 31 combined: max UC credit, one course.
Degree Applicable, Credit
Grading Option: GR
BIOL 40 FIELD BIOLOGY
3 UNITS
California ecosystems and living vertebrates, their behavior, evolution and ecology, and their interactions with humans. 2 hours lecture, 3 hours laboratory. Transfer: CSU; CSU GE: B2, B3
Degree Applicable, Credit
Grading Option: GR

BIOL 50 ANATOMY AND PHYSIOLOGY
4 UNITS
Structure and function of the human body is studied. Emphasis on human anatomy and physiological principles at the cellular and systemic level. Designed primarily for majors in paramedic and medical assisting programs and pre-medical students who wish to explore the realm of anatomy and physiology. 3 hours lecture, 3 hours laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B2, B3; IGETC: 5B \& Lab. *BIOL 50 combined with ANAT 1 and PHSI 1: max UC credit, 2 courses Degree Applicable, Credit Grading Option: GR

## BOTANY (BOTN)

Botany 1 is one of many courses offered by the Biology Department. It fulfills various degree, certificate, transfer, and/or career requirements. For more details about how Botany 1 fits into different pathways, please see "Biology" in the catalog, page 60.

## BOTN 1

GENERAL BOTANY
5 UNITS
Plant structure and function, with emphasis on anatomy, morphology, and physiology of higher (flowering) plants. Includes evolutionary sequence of plant forms and basic principles of ecology. Prerequisite: Math 55 or 55B or 55 Y or an appropriate skill level demonstrated through the mathematics assessment process. Strongly recommended: Biology 31. 3 hours lecture, 6 hours laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: B2, B3; IGETC: 5B \& Lab Degree Applicable, Credit

Grading Option: GR

## BUSINESS

## DEGREE CERTIficate

## About the Program

The Business area of study is designed to prepare students for a wide range of careers and to assist students in upgrading existing work knowledge and skills. The areas of specialization available at Las Positas College reflect the current and projected needs of the ever changing, dynamic business environment. It is critical that students work closely with business faculty and counselors to determine what degrees or certificates are most consistent with their individual career and/or transfer goals. Students may pursue programs that:

- Upgrade skills
- Prepare them for work
- Continue their education with a transfer pattern of study


## Degrees/Certificates

- Degrees:
- AS - Business
- AA - Business Administration (Transfer Preparation)
- AA - Business Entrepreneurship
- Certificates:
- Business Entrepreneurship
- Accounting Technician
- Business Workforce Proficiency
- Retail Management
- Supervisory Management


## Career Opportunities

Career opportunities include, but are not limited to: entry, levelone analyst and assistant positions in marketing, human resources, distribution, logistics, human resources, product research, and finance; and entry-level supervisory positions in all business and non-profit entities.

## Transferability

A majority of the Business courses transfer to four-year universities and may fulfill typical lower division major requirements for business related majors. Variation in requirements may exist at particular fouryear universities; therefore, it is essential that the student refer to the catalog of the prospective transfer institution and consult a counselor.

## AA - Administrative Assistant

Freshman Year
Computer Information Systems 50 (Introduction to Computing and Information Technology
.3
Computer Information Systems 73A (Ten-Key Skill Development).......... 1
Computer Information Systems 75 (Office Technology/
Communications) $\qquad$
Computer Information Systems 88A (Introduction to Microsoft Word for Windows).1.5

Computer Information Systems 88B (Advanced Microsoft Word for Windows)1 .5
Business 74 (Office Procedures)...................................................................... 3
Computer Information Systems 43 (Professional Communications) or
Business 43 (Professional Communications)............................................. 4
Business 40 (Introduction to Business).......................................................... 3
Business 51A (General Accounting I) or
Business 1A (Financial Accounting).


General Education Courses

## Sophomore Year

Computer Information Systems 72A (Data Management)......................... 1
Computer Information Systems 55
(Integrating Office Applications)
Business 48 (Human Relations in the Workplace)
.....................................
Computer Information Systems 54 (Excel Introduction to
Spreadsheets)............................................................................................... 4
Computer Information Systems 89A (Desktop Presentation) .................. 1
Business 95 (Business Work Experience) or
Business 92 (Workforce Laboratory).1-3

Business 96 (Business Work Experience Seminar) or
Business 91 (Workforce Seminar).1-2
Electives*.. ..... 0-3

General Education Courses
Total units required.60

## *Electives

Select from the following for a minimum of 6 units:
Business 60 (Consumer Finance)
Business 91 (Workforce Development Seminar) and Business 92
(Workforce Development Laboratory)
Computer Information Systems 57 (ACCESS: Introduction to Databases)
Computer Information Systems 59A
(Web Development: HTML/ XHTML)
Computer Information Systems 66 (Networking Fundamentals
Computer Information Systems 69 (Web Development: Web Design Technologies and Tools)
Computer Information Systems 89B (Desktop Publishing)
Computer Information Systems 72B (Spreadsheet Integration with Word Processing)
Marketing 50 (Introduction to Marketing)
Business 56 (Introduction to Management)

## Keyboarding Competency for AA - Administrative Assistant

Students must demonstrate keyboarding speed for 60 net words per minute. Competency can be met by completing Computer Systems Information 71C or 71D or 7IE with a " C " or higher or by presenting a Las Positas College Verification of Proficiency certifying 60 net words per minute in a five (5) minute timing.

## AS - Business

## Freshman Year

Business 48 (Human Relations in the Workplace) or Business 52 (Business Communications) 3
Business 40 (Introduction to Business) .....  3
Business 55** (Business Mathematics) .....  3
Business 51A (General Accounting I) or Business 1A Financial Accounting) ..... 3-4
Computer Information Systems 50 (Introduction to Computingand Information Technology). 3
Economics 10*** (General Economics) or
Economics 1*** (Microeconomics). .....  3
Electives*. .....  1-4
General Education Courses ${ }^{\circledR}$
Sophomore Year
g3
Business 30*** (Business, Society and Ethics or Business 20(International Business). 3
Computer Information Systems 88A (Introduction to Microsoft Wordfor Windows) and

Computer Information Systems 88B (Advanced Microsoft Word for Windows) 3
Computer Information Systems 55 (Integrating Office Applications) ... 4Business 18 (Business Law) .4Business 53 (Business Correspondence) orBusiness 43 (Professional Communications).3-4
Business 95 (Business Work Experience). ..... 1-3
Business 96 (Business Work Experience Seminar) .....  1
Electives*.. ..... 1-4
General Education Courses ${ }^{\text { }}$
Total units required60
Program-based General Education requirement. Speech 10 or Speech 11
*Electives
Select from the following for a minimum of 1 unit:
Business 60 (Consumer Finance and Ownership)Computer Information Systems 54
(Excel: Introduction to Spreadsheets)
Computer Information Systems 71 (Computer Typing)
Computer Information Systems 72A (Data Management)Computer Information Systems 72B (Spreadsheet Integration withWord Processing)
Computer Information Systems 75
(Office Technology/ Communications)
Business 56 (Introduction to Management)
Any Marketing Course (except Marketing 50)** Meets Math; Communications/Analytical Thinking Requirements***Meets Social and Behavioral Sciences requirement

## AA - Business Administration

(Transfer Preparation)
This degree prepares students interested in transferring to four-year institutions for continued study in business administration. The program outlined below fulfills typical lower-division requirements at four-year transfer institutions. Some variation in requirements may exist at a particular four-year college or university; therefore, it is essential that the student refer to the catalog of the prospective transfer institution and consult a counselor.

## Freshman Year

Business 40 (Introduction to Business)$\ldots . .3$
Business 18 (Business Law)

$\qquad$ .....  4
Information Technology) .....  3
Economics 2 (Macroeconomics). .....  3
Mathematics 33 (Finite Mathematics) or
Mathematics 34 (Calculus for Business and Social Sciences). ..... 3-5
Select from the following for a minimum of 1 unit:
Computer Information Systems 71ABCDE (Computer Typing) orLibrary Studies 4, 5, 6, 7 (Library Skills).

General Education Courses
Sophomore Year
Business 1A (Financial Accounting) .....  4
Economics 1 (Microeconomics) .....  3
Mathematics 44 (Probability and Statistics) or
Mathematics 41 (Statistics for Business Majors) or
Mathematics 42A (Introduction to Probability and Statistics) ..... 3-5
Business 1B (Managerial Accounting) .....  4
General Education Courses
Total units required ..... 60
AA - Business Entrepreneurship
Freshman Year
Business 48 (Human Relations in the Workplace) .....  3
Business 40 (Introduction to Business) .....  3
Business 55** (Business Mathematics) .....  3
Business 43 (Professional Communications) or Business 53 (Business Correspondence). ..... 3-4
Business 51A (General Accounting I) or
Business 1A (Financial Accounting). ..... 3-4

Marketing 50 (Introduction to Marketing)............................................................ 3
Economics 10*** (General Economics) or
Economics 1*** (Microeconomics)................................................................ 3
Recommended Electives*
General Education Courses
Sophomore Year
Business 18 (Business Law) ....................................................................................................... 4
Computer Information Systems 50 (Introduction to Computing and Information Technology)..
.... 3
Business 58 (Small Business Management) or
Marketing 60 (Retail Store Management).. .3

Business 56 (Introduction to Management). $\ldots . . .3$
Business 95 (Business Work Experience).... ..... 1-3
Business 96 (Business Work Experience Seminar). .....  1
Recommended Electives*
General Education Courses
Total units required. ..... 60
*Recommended Electives

Business 20 (International Business)
Business 30 (Business Ethics and Society)
Business 52 (Business Communications)
Business 60 (Consumer Finance and Ownership)
Business 81 (Introduction to Investments)
Computer Information Systems 54
(Excel: Introduction to Spreadsheets)
Computer Information Systems 71 (Computer Typing)
**Meets Math; Communications/Analytical Thinking Requirements
***Meets Social and Behavioral Sciences requirement

## Certificate of Achievement Accounting Technician

Business 40 (Introduction to Business). 3
Business 1A (Financial Accounting). .....  4
Business 1B (Managerial Accounting) .....  4
Business 53 (Business Correspondence) .....  3
Business 55 (Business Mathematics) .....  3Computer Information Systems 54(Excel: Introduction to Spreadsheets) 4
Computer Information Systems 73A (Ten-Key Skill Development).........
Business 61 (Introduction to QuickBooks Accounting). ..... 1.5
Business 65 (Federal Income Tax) .....  3
Total units required. ..... 26 .5
Career Certificate - Bookkeeping ${ }^{\S}$
Business 61 (Introduction to QuickBooks Accounting). .....  1.5
Business 51A (General Accounting I).. .....  3
Business 55 (Business Mathematics) .....  3
Business 63 (Payroll Accounting I) ..... 2
Computer Information Systems 54 (Excel: Introduction to Spreadsheets) .....  .4
Computer Information Systems 88A (Introduction to Microsoft Wordfor Windows). 1.5
Total units required. .....  16§This certificate is not transcripted. This group of courses provides industry-based professional development. Individual courses will appear on transcript.See a counselor for further information.

## Certificate of Achievement Administrative Assistant

Computer Information Systems 73A (Ten-Key Skill Development)......... 1 Computer Information Systems 72A (Records and Data Management)....... 1 Computer Information Systems 72B (Spreadsheet Integration with Word Processing).

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Computer Information Systems 75 (Office Technology/
    Communications). 1
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Business 74 (Office Procedures) .....  .3
Computer Information Systems 43 (Professional Communications) orBusiness 43 (Professional Communications). 4
Computer Information Systems 50 (Introduction to Computing andInformation Technology)$\ldots . .$.
Computer Information Systems 88A (Introduction to Microsoft Wordfor Windows) and
Computer Information Systems 88B (Advanced Microsoft Word forWindows) .3
Computer Information Systems 89A (Desktop Presentation). .....  1
Business 51A (General Accounting). .....  3
Computer Information Systems 55 (Integrating OfficeApplications for Personal Computers) or
Computer Information Systems 54 (Excel: Intro to Spreadsheets). .....  4
Business 40 (Introduction to Business). .....  3
Business 48 (Human Relations in the Workplace) .....  3
Total units required .....  31
NOTE: Keyboarding Competency for:
Certificate of Achievement - Administrative Assistant and
Certificate of Achievement - Business Workforce Proficiency

Students must demonstrate keyboarding speed of 40 net words per minutes. Competency can be met by completing Computer Information Systems 71C, Computer Information Systems 7ID, or Computer Information Systems 7IE with a "C" or better or by presenting a Las Positas College Verification of Proficiency certifying 40 net words per minutes in a five (5) minute timing.

## Certificate of Achievement Business Entrepreneurship

Computer Information Systems 50 (Introduction to Computing and Information Technology) 3
Business 53 (Business Correspondence) .....  3
Business 55 (Business Mathematics) .....  3
Marketing 50 (Introduction to Marketing). .....  3
Business 18 (Business Law). .....  .4
Business 40 (Introduction to Business). .....  .3Business 51A (General Accounting I) orBusiness 1A (Financial Accounting).3-4
Business 58 (Small Business Management) orMarketing 60 (Retail Store Management) 3
Business 56 (Introductions to Management) orBusiness 48 (Human Relations in the Workplace) 3
Total units required ..... 28-29
Career Certificate
Business Workforce Proficiency ${ }^{\text {§ }}$
Business 82.2 (Success Strategies) orPsychology/Counseling 15 (College Study Skills). 2
Business 48 (Human Relations in the Workplace) .....  .3
Computer Information Systems 43 (Professional Communications) orBusiness 43 (Professional Communications). 4
Business 74 (Office Procedures). .....  3
Business 40 (Introduction to Business). .....  3
Business 91 (Workforce Development Seminar) .....  1
Business 92 (Workforce Development Laboratory). .....  1
One Elective Unit* .....  1
Total units required: .....  18
*Electives
Select from the following for a total of 1 unit:
Computer Information Systems 72A (Data Management)
Computer Information Systems 72B (Spreadsheet Integration with Word Processing)
Computer Information Systems 73A (Ten-Key Skill Development)
Computer Information Systems 75 (Office Technology/ Communications)
Computer Information Systems 84 (Windows)
Computer Information Systems 89A (Desktop Presentation)
sThis certificate is not transcripted. This group of courses provides industry-based professional development. Individual courses will appear on transcript. See a counselor for further information.

## NOTE : Keyboarding Competency for:

Certificate of Achievement - Administrative Assistant and
Certificate of Achievement - Business Workforce Proficiency
Students must demonstrate keyboarding speed of 40 net words per minutes. Competency can be met by completing Computer Information Systems 71C, Computer Information Systems 7ID, or Computer Information Systems 7IE with $a$ " $C$ " or better or by presenting a Las Positas College Verification of Proficiency certifying 40 net words per minutes in a five (5) minute timing.

## Certificate of Achievement <br> Retail Management

Business 55 (Business Mathematics) .. 3

Business 52 (Business Communications) or
Speech 10 (Interpersonal Communication). $\qquad$
Computer Information Systems 50 (Introduction to Computing and Information Technology) or
Three (3) units of Computer Application courses such as Word, Excel, etc 3

Business 53 (Business Correspondence)
or English 1A (Critical Reading and Composition) 3
Business 56 (Introduction to Management). .....  3Business 51A (General Accounting I) orBusiness 1A (Financial Accounting).3-4
Marketing 50 (Introduction to Marketing) ..... 3
Marketing 60 (Retail Store Management) .....  3
Business 48 (Human Relations in the Workplace) .....  3
Business 88 (Human Resources Management). .....  3
Total ..... 30-31 units

## Certificate of Achievement

 Supervisory ManagementBusiness 48 (Human Relations in the Workplace) 3Business 56 (Introduction to Management). 3
Business 88 (Human Resources Management) ..... 3
Business 30 (Business Ethics and Society). .....  3Business Work Experience 95 and
Business Work Experience 96 (Seminar) 1
Electives:*, .....  3
Total units required ..... 17
*Electives (Emphasis in Law or Accounting)
Select from the following for a minimum of 3 units.

Business 1A (Introduction to Accounting) or Business 51A (General Accounting)
Business 18 (Business Law)
Business 40 (Introduction to Business)
Business 43 (Professional Communications)
Business 58 (Small Business Management)
Business 60 (Consumer Finance and Ownership)

## BUSINESS (BUSN)

BUSN 1A FINANCIAL ACCOUNTING 4 UNITS
A study of accounting as an information system; examining why it's important, and how it's used by investors and creditors to make decisions. Includes the recording and reporting of business transactions with a focus on the accounting cycle, the application of generally accepted accounting principles, the classified financial statements for merchandising and service companies, and statement analysis. Also includes issues related to asset, liability and equity valuation; revenue and expense recognition, cash flow, internal controls and ethics. (Formerly known as Principles of Accounting I) 4 hours lecture, 1 hour laboratory. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

BUSN 1B MANAGERIAL ACCOUNTING
4 UNITS
A study of the use and reporting of accounting data for managerial planning, cost control, and decision making purposes. Includes broad coverage of concepts, structures, classifications, and behaviors of costs. Topics include; cost systems, job costing, process costing, activity based costing, relationship between cost, volume and profitability, relevant range, standard costing, profit planning and budgeting, static and flexible budgeting, responsibility accounting and segment reporting, absorption and variable costing and capital expenditure decisions. (Formerly known at Principles of Accounting II) Prerequisite: Business 1A (completed with a grade of "C" or higher). 4 hours lecture, 1 hour laboratory. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

## BUSN 18 BUSINESS LAW <br> 3 UNITS

A study of the legal environment of business. Covering laws and regulation affecting business decisions including legal concepts and cases in areas of employment, contracts, consumer transactions, competition, agency, business torts and crimes, and business organizations. Strongly Recommended: English 1A. 4 hours lecture. Transfer: CSU, UC Degree Applicable, Credit

Grading Option: OP

## BUSN 20 INTERNATIONAL BUSINESS

3 UNITS
Exploration of major factors involved in developing international trade. An overview of foreign market analysis, international law and ethics, financial environment, manufacturing, physical distribution, and state and federal resources available to facilitate important and exporting. Strongly recommended: Business 40 and English 1A. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
BUSN 30 BUSINESS ETHICS AND SOCIETY
3 UNITS
A survey of the past and current behavior of business in America society. Examines the ethical, political and social issues confronting organizations and the organizations' responsibilities and obligations in responding to them. Discusses the responsibility of business toward customers, employees, stockholders, competitors, suppliers, government and the community at large. 3 hours lecture. AA/AS GE. Transfer: CSU; CSU GE: D7
Degree Applicable, Credit Grading Option: OP
BUSN 40 INTRODUCTION TO BUSINESS
3 UNITS
An introduction to business operations within a capitalistic, freemarket economy. Provides an overview of global economic systems, business formations, business ethics and laws, general accounting practices and financing, facility location and layout, production, organizational structures and management functions. Fundamentals of risk management, marketing, human resources, and employee motivation are covered. Strongly recommended: English 1A. 3 hours lecture. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

## BUSN 43 PROFESSIONAL COMMUNICATIONS <br> 3 UNITS

This course is designed to help students develop and refine the written and oral communication skills necessary to communicate effectively in a business environment. This will be accomplished through the planning, composing, and evaluating of written communication; report writing; and oral presentations. Additional focus will be placed on developing interpersonal skills, team participation skills, and professionalism. Students who have completed or are enrolled in Computer Information Systems 43, Computer Networking Technology 43, Computer Science 43, English 43, or Speech 43 may not receive credit. Strongly recommended: English 1A. 4 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## BUSN 47 SUPERVISORY MANAGEMENT FOR DIRECT SUPPORT SERVICES

Principles, functions, and responsibilities of effective supervisory management for direct support services organizations that serve disabled persons. Focus on the planning, organizing, staffing, leading, and controlling aspects within an organization, including current trends and developments, ethics, advocacy, diversity, legal issues, decision making, problem solving, communications, leadership, training, employee evaluation, and team building. Strongly recommended: Eligibility for English 1A. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

BUSN 48 HUMAN RELATIONS IN THE WORKPLACE 3 UNITS
An introduction to the interpersonal skills needed in today's workplace with a focus on decision making, cross cultural relations, resolving conflict, managing change, group dynamics, ethical behavior, becoming a leader, and personal career management. Students who have completed Supervision 81 may not receive credit. 3 hours lecture Degree Applicable, Credit

Grading Option: OP
BUSN 51A GENERAL ACCOUNTING
3 UNITS
Bookkeeping practice; debit and credit practice; books of original entry; ledgers, working papers, adjusting and closing entries; income statement, balance sheet, and statement of owners equity, cash, payroll, special journals, merchandising firms. 3 hours lecture, 1 hour laboratory. Transfer: CSU
Degree Applicable, Credit Grading Option: OP

BUSN 52 BUSINESS COMMUNICATIONS
Study of communication functions, choices, and roles for professionals that help remove barriers. Practice in using verbal, nonverbal and writing skills to communicate one-on-one, in groups and electronically. Cross-cultural communications, face-to-face and online meetings management, delegating work assignments, planning, problem solving conferences, employee counseling and making oral presentations. Strongly recommended: Eligibility for English 1A. 3 hours lecture. AA/AS GE. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
BUSN 53 BUSINESS CORRESPONDENCE 3 UNITS
Development of skills in organizing and writing business letters, memoranda, e-mail, reports, resumes, and letters of application with an emphasis on rules for punctuation, spelling, and grammar which meet the needs of modern business. Strongly recommended: Eligibility for English 1A. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
BUSN 55 BUSINESS MATHEMATICS
Mathematics to solve typical business problems including simple interest, compound interest, installment sales, trade and cash discounts, mark on percents, pricing, discounting notes and drafts, depreciation, taxes, insurance, statistics, stocks and bonds, and distribution of ownership and profits. Strongly recommended: Business 105B. 3 hours lecture. AA/AS GE. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

BUSN 56 INTRODUCTION TO MANAGEMENT 3 UNITS
Principles, concepts and theories of the functions and responsibilities of management focus on the planning, organizing, coordinating and controlling aspects within an organization; focus on the current trends and developments in management; including social responsibility and ethics in business, decision making, communications and budgetary control. 3 hours lecture. Transfer: CSU
Degree Applicable Credit
Grading Option: OP
BUSN 58 SMALL BUSINESS MANAGEMENT
3 UNITS
Fundamentals of starting and operating a business. Emphasis on achieving optimum benefits from limited resources. Focus on management functions, financing options, e-commerce, marketing, and regulatory issues encountered by start-up businesses. Strongly recommended: Business 51 or Business 1A. 3 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP
BUSN 59 LEADERSHIP ACTIVITY
1 UNIT
Performance in marketing and management competitive events plus field trips, workshops, market research studies and projects designed to develop vocational competence and leadership abilities. 1 hour lecture. (May be taken 4 times)
Degree Applicable Credit Grading Option: OP

BUSN 60 CONSUMER FINANCE AND OWNERSHIP 3 UNITS
Principles and practices of renting or owning real estate, vehicles, and other investments. Financial management of banking, options, credit, insurance, taxes, estate planning in relationship to business cycles and government relations. Strongly recommended: Eligibility for English 1A and Math 65. 3 hours lecture. Transfer: CSU

Degree Applicable, Credit
Grading Option: OP

BUSN 61 INTRODUCTION TO QUICKBOOKS ACCOUNTING 1.5 UNITS
Introduction to the use of QuickBooks accounting software to process transactions related to a service company. Specific topics include using company files, sales and receivables, payables and purchases, end of period transactions and payroll. Transactions include journalizing, adjusting entries, closing entries, bank reconciliation and preparing financial statements. Strongly recommended: BUSN 1A or BUSN 51A or equivalent. 1 hour lecture, 1.5 hours lab - 1.5 units. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

BUSN 63 PAYROLL ACCOUNTING I
2 UNITS
Learn about Payroll Accounting System based on state and federal payroll tax laws. Concepts covered include: Fair Labor Standards Act, employee and employer payroll tax deductions, payroll recordkeeping requirements, personnel records, unemployment tax acts, computing gross and net salaries, reading time cards, computing regular and overtime wage rates for hourly and salaried employees. Filing payroll tax returns and computing various payroll taxes including: Social Security tax, federal income tax, state income tax, federal unemployment tax, state unemployment tax and voluntary withholdings. 2 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

BUSN 65 FEDERAL INCOME TAX ACCOUNTING
3 UNITS
A study and analysis of the principles of federal income tax applied to employees, self-employed individuals and rental income. Includes an overview of taxes related to partnerships, informational returns and corporate tax returns. Analysis of the Internal Revenue Code with examination of court rulings and regulations. Review of new legislation that alters existing tax law. Introduction to tax preparation software is included. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## BUSN 74 OFFICE PROCEDURES

3 UNITS
Introduction to office principles and procedures including telephone skills, office equipment, working effectively in a team environment, records management, customer service, meeting/event planning, postal/shipping services, utilizing the internet for on-line services and resources, written and oral business communications, conflict resolution and office etiquette. Prepares administrative professionals to work in a diversified workforce with emerging technologies Strongly recommended: CIS 8 and CIS 71C. 2 hours lecture and 3 hours laboratory.
Degree Applicable, Credit
Grading Option: OP

BUSN 75.1 PREVENTING SEXUAL HARASSMENT: GUIDELINES FOR [7501] CREATING A HARASSMENT FREE WORKPLACE 1 UNIT
This program is designed to provide the critical element of understanding of sexual harassment in the workplace and comply with California's AB 1825 requirements. The program includes an introduction of the causes and effects of harassment, the legal definition of harassing behavior and steps that can be taken to resolve problem situations. The differences between the state and federal laws and the information that all supervisory personnel need to know in order to maintain a harassment free environment are covered. This program will provide guidance on harassment investigative processes including interviewing the complainant, alleged harasser and witnesses. The program also covers the emotional aspects of harassment and the importance of having a safe work environment where employees can report sexual harassment violations without the fear of shame or retaliation. Strongly recommended: Eligibility for English 1A. 1 hour lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

BUSN 75.2 LEAVES OF ABSENCE: AVOIDING ABSENCE [7502] AND ATTENDANCE PITFALLS

1 UNIT
This course is a comprehensive overview of the major federal and state leaves of absence and their impact on attendance policies and processes. The course focuses on compliance with the Family and Medical Leave Act and is designed to meet the needs of the owner and manager. The program will include an overview of federal legislation including the Family and Medical Leave Act, the Americans with Disabilities, the Veterans Employment and Reemployment Rights Act and the companion pieces of state legislation. The course will provide an understanding of the legislation and assist attendees in developing appropriate processes as well as ways of handling these complex attendance and absence issues. Strongly recommended: Eligibility for English 1A. 1 hour lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## BUSN 75.3 RECRUITING, INTERVIEWING

[7503] AND SELECTING EMPLOYEES
1 UNIT
This course is a concentrated review of the basic elements involved in the recruitment, interviewing and selection of employees. The course is designed to meet the needs of the owner and manager in finding and matching the best applicant with current job openings. Basic policies and practices, effective procedures, and current legislation affecting recruitment, interviewing and selection are included. This course will walk attendees through the basics of the process from planning and effective interview, using behavioral interviewing, complying with employment law, assessing each candidate's job performance and predicting future success within the organization. Strongly recommended: Eligibility for English 1A. 1 hour lecture. Transfer: CSU
Degree Applicable Credit Grading Option: OP
BUSN 75.4 [7504] TEAM BUILDING
Provides the student with an understanding of how to motivate, inspire and guide work groups, the dynamics of group interactions, trust building strategies, effective feedback tools and techniques to build more cohesive and motivated groups. The measurements and
tracking tools for energizing and managing a team to success will be discussed. Introduce the essential skills to facilitate an effective meeting. 9 total hours lecture.
Degree Applicable Credit Grading Option: OP
BUSN 75.5 [7505] DEALING WITH DIFFICULT PEOPLE . 5 UNITS
The course provides the student with an analysis of attitudes and behaviors that cause conflict and provides ways to communicate to prevent conflict. The course will provide techniques to reinforce positive behavior in others, focus on problem solving while maintaining effective work relationships and identify behaviors that may cause conflict. 9 total hours lecture. Transfer: CSU Degree Applicable Credit

Grading Option: OP

## BUSN 75.6 [7506] SUCCESSFUL PERFORMANCE

 APPRAISALS. 5 UNITS
Develop essential skills and techniques to maximize performance and value in your employees and learn how to create clear and effective work objectives and establish consistent performance standards. The course will provide communication skills managers and supervisors can use to foster a commitment to succeed in employees. Strategies for goal-setting, performance feedback, and monitoring, tracking employee performance will be presented. 9 total hours lecture. Transfer: CSU
Degree Applicable Credit
Grading Option: OP

## BUSN 77 FINANCIAL AND INSURANCE PROCEDURES

 FOR MEDICAL OFFICES3 UNITS
A comprehensive study of medical documentation, insurance claims, coding, billing and collection strategies. Procedures and paperwork involving various insurance providers including Tricare, Medicare, Medi-claim, Workman's Compensation, Disability Insurance, and private insurance carriers in inpatient and outpatient care. Privacy rules and regulations governed by HIPPA involving patient confidential information. 3 hours lecture. Transfer: CSU
Degree Applicable Credit
Grading Option: OP

## BUSN 81 INTRODUCTION TO INVESTMENTS 3 UNITS

Application of investment principles, including the various types of securities, the problems of securing capital for business ownership and the decisions involved in an individual or a corporate investment program. 3 hours lecture. Transfer: CSU
Degree Applicable Credit
Grading Option: OP

BUSN 82.1 WORKFORCE ORIENTATION
0.3-0.6 UNITS

Orientation to Workforce Development opportunities, support, and responsibilities. Computer usage and connections to Internet; East Bay Works and other information resources. 13.5-27 hours laboratory. Degree Applicable, Credit

Grading Option: OP

## BUSN 82.2 SUCCESS STRATEGIES

2 UNITS
Study of professional and personal growth, college success skills, and career development. Emphasis is on enhancing one's self-image and self-knowledge and improving study skills. Students work on developing time management, writing, reading, test taking, note taking, memory, study, and relationship skills. Includes modeling, practice, and evaluation of study techniques. 2 hours lecture.
Degree Applicable, Credit
Grading Option: OP

## BUSN 84 WORKPLACE SAFETY, SECURITY AND HEALTH

3 UNITS
Management's responsibilities in workplace safety, security, health and accident prevention. Focus on managers' and supervisors' role; Cal-OSHA, California SB 198 and the American Disabilities Act in relation to a secure, safe and healthy work environment; identifying and containing different types of safety and security hazards; safety and security analysis; and incident investigation; health and safety training aids, stress reduction and management; ergonomics and
future challenges in safety and security issues. Strongly recommended: Business 56. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

BUSN 85 INTRODUCTION TO LABOR
MANAGEMENT RELATIONS
3 UNITS
History, organization, concepts, and legislation of labor/management relations; collective bargaining contract content, legal base, economics, and contract negotiation; contract administration; dispute resolution grievances arbitration, and mediation; public sector labor/ management relations, unfair labor practices and remedies; global implications and emerging trends, issues and future challenges. Strongly Recommended: Business 56.3 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

## BUSN 88 HUMAN RESOURCES MANAGEMENT 3 UNITS

Introduction to the management of human resources with an emphasis on understanding the impact and accountability to the organization in terms of human resource decisions and activities. Focus on best strategies and practices in recruitment and selection, performance management, compensation and benefits, employee relations, and workplace health, safety and security. Strongly recommended: Business 56. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

BUSN 91 WORK FORCE DEVELOPMENT SEMINAR 1 UNIT
LaPTechs (Las Positas Technical Support) is an on-campus business that provides on-the-job training in technical and business applications. Assessment of job-related skills, goal setting, time planning and prioritizing, improvement of listening and nonverbal communication strategies, development of critical thinking abilities in working with data, materials and people. Assessment, analysis and improvement of characteristics, values, attitudes and guide transition into the workplace. Corequisite: Business 92.1 hour lecture.(May be taken 3 times) Degree Applicable, Credit

Grading Option: OP
BUSN 92 WORK FORCE DEVELOPMENT LABORATORY 1-2 UNITS LaPTechS (Las Positas Technical Support), an on-campus, on-the-job training laboratory simulating a workplace environment wherein students perform typical workplace functions in either business or technical applications. Technical applications include: hardware and operating system support, job shadowing LPC tech support team, job skills preparation. Business applications include: data and information collections, storage and retrieval, document preparation, customer service, verbal and nonverbal communication, job skills preparation. Corequisite: Business 91.4 or 8 hours laboratory/week/unit. (May be taken 3 times)
Degree Applicable, Credit
Grading Option: OP

## BUSN 95 BUSINESS WORK EXPERIENCE

1-3 UNITS
Earn college credit while working.College supervised part-time or fulltime employment. Through the cooperation of the work supervisor, students contract to accomplish new learning objectives and broaden their experiences at work. Corequisite: Concurrent enrollment in Business 96. 5-15 hours of employment per week. Maximum units for all work experience courses, combined (95, 96 and 98 ) total of 16 units. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: GR
BUSN 96 BUSINESS WORK EXPERIENCE SEMINAR 1 UNITS
Earn college credit while working. Focal point for the coordination of college supervised part-time or full-time employment. With an emphasis on building strong working relationships with supervisors, subordinates and co-workers, seminar topics include: effective communication skills, career exploration, resume writing, job interviewing and case studies. Corequisite: Business Work Experience
95. Maximum units for all work experience courses, combined (95, 96 and 98) total of 16 units. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: GR
BUSN 105A BUSINESS ARITHMETIC 2 UNITS
Self-paced, individualized, mastery learning course covering decimals and fractions. Application of these arithmetic skills to common business problems such as: bank statement reconciliation, payrolls, insurance, measurement. 3 hours laboratory/lecture combination. (May be taken 2 times)
Nondegree Applicable, Credit
Grading Option: GR
BUSN 105B BUSINESS ARITHMETIC
2 UNITS
Self-paced, individualized, mastery learning course covering percents, proportions, equations. Application of these arithmetic skills to common business problems such as: discounts, interest, prorating, solving for unknowns, linear equations. Prerequisite: Business 105A (completed with a grade of " C " or higher). 3 hours laboratory/lecture combination. (May be taken 2 times)
Nondegree A pplicable, Credit Grading Option: GR
BUSN 107 BUSINESS ARITHMETIC APPLICATIONS 3 UNITS
Application of decimals, fractions, percents, ratios, proportions and equations to common business problems including, but not limited to, bank statement reconciliation, payrolls, purchase orders, invoices, sales. 2 hours lecture, 3 hours laboratory.
Nondegree Applicable, Credit
Grading Option: OP

## CERTIFIED

## NURSING ASSISTANT

CNA 50 NURSING ASSISTANT FUNDAMENTALS 5 UNITS
This course covers communication and interpersonal skills, infection control, safety and emergency procedures, promoting resident independence, respecting resident rights, basic nursing skills, personal care skills, mental health and social services needs, care of the cognitively impaired resident, basic restorative care, resident rights, dementia, and cultural awareness. During the program HIPAA, CPR for the healthcare provider, HIV/AIDS, will be integrated into the program. Upon completion, student will be eligible to take the State of California Certification Examination to become a Certified Nursing Assistant qualified for employment in community and long-term health care facilities. 3 hours Lecture, 6 hours laboratory. Transfer: CSU (May be taken four times)
Degree Applicable, Credit
Grading Option: GR

## CHEMISTRY

- DEGREE


## About the Program

The Chemistry Program offers various courses that fulfill many academic requirements including general education requirement in the area of Natural Sciences; prerequisite courses for entry into allied health fields including nursing and dental hygiene; and majors courses for transfer to four-year institutions for continued study in the areas of chemistry, biology, physics, engineering, and other related fields; for pre-professional studies in medicine, dentistry, or pharmacy; or for completion of a BA Chemistry degree with a focus on chemistry education.

## Degrees/Certificates

- Degree:
- AS - Chemistry (Transfer Preparation)
- AA - Chemistry Education


## Career Opportunities

There are many career options for chemistry majors. The AS Chemistry degree provides entry-level opportunities as chemical or general laboratory technicians in industry and academia. Bachelor's degree opportunities include careers in technician-level research and development, energy, biotechnology, forensic science, pharmaceuticals, materials research and production, petrochemicals, food science, environmental science, business requiring technical management, service and sales, technical and science writing, teaching science education; and entry into professional studies in medicine, dentistry, pharmacy, and others. Students interested in becoming high school and middle school science teachers are encouraged to follow the AA - Chemistry Education pathway which articulates directly with 4-year programs in teacher preparation. Chemistry majors interested in teaching at the college level and/or pursuing research careers will continue on to pursue post-graduate degrees.

## Transferability

The AS Chemistry degree fulfills the lower-division requirements recommended by the American Chemical Society for a chemistry transfer major and is typical of requirements at four-year transfer institutions. The program also satisfies lower-division requirements in chemistry for engineering and biology transfer majors or for pre-professional studies in medicine, dentistry, or pharmacy. General education requirements should be selected carefully based on the intended transfer institution, so students should also refer to the catalog of the prospective transfer institution and consult a counselor.

The AA in Chemistry Education degree fulfills the lower-division requirements for a four year BA Chemistry programs designed for future high school and middle school science teachers. The AA degree is designed to articulate directly with 4-year institution teacher preparation programs with a focus on chemistry education including single subject teacher preparation in science with a concentration in chemistry. An AA in Chemistry Education would also be an appropriate transfer preparation for students considering chemistry-related interdisciplinary fields. General education requirements should be selected carefully based on the intended transfer institution, so students should also refer to the catalog of the prospective transfer institution and consult a counselor.

## AS - Chemistry (Transfer Preparation)

The AS Chemistry degree fulfills the lower-division requirements recommended by the American Chemical Society for a chemistry transfer major and is typical of requirements at four-year transfer institutions. The program also satisfies lower-division requirements in chemistry for engineering and biology transfer majors or for preprofessional studies in medicine, dentistry, or pharmacy. General education requirements should be selected carefully based on the intended transfer institution, so students should also refer to the catalog of the prospective transfer institution and consult a counselor.

## Freshman Year

Chemistry 1A** (General College Chemistry I)............................................ 5
Chemistry 1B (General College Chemistry II)............................................... 5
Math 1* (Analytical Geometry and Calculus I)............................................. 5
Math 2 (Analytical Geometry and Calculus II).....................................................
Physics 8A (General Physics I).......................................................................... 5
Recommended Electives*
General Education Courses§

## Sophomore Year

Chemistry 12A (Organic Chemistry I).......................................................... 5
Chemistry 12B (Organic Chemistry II) ............................................................ 5
Math 3 (Multivariable Calculus)...................................................................... 5
Physics 8B (General Physics II) or Physics 8C (General Physics III).......... 5
Recommended Electives*
General Education Courses ${ }^{\S}$
sprogram-based General Education requirement (may be taken either freshman or sophomore year):
Ecology 10 or Biology 1 or Computer Science 1
Total units required. $\qquad$
*Recommended Electives:
Physics 8B (General Physics II) or Physics 8C (General Physics III)* Physics 8D (General Physics IV)
Mathematics 5 (Differential Equations with Computer Applications)
Mathematics 7 (Elementary Linear Algebra with Computer Applications)
Computer Science 1 (Computing Fundamentals I)
*Physics $8 B$ and Physics $8 C$ may be used either to fulfill program core requirements or recommended electives, but may not be double-counted for both areas.

* Fulfills Communication and Analytical Thinking requirement.
** Fulfills the Natural Science requirement for the AS degree.
To remain in a chemistry class a student must demonstrate competency in chemistry lab safety procedures by receiving a satisfactory score on the safety quiz administered during the NGR period.


## AA - Chemistry Education

The AA in Chemistry Education degree is intended to prepare students to transfer into four year BA Chemistry programs designed for future high school and middle school science teachers. The AA degree is designed to articulate directly with 4-year institution teacher preparation programs with a focus on chemistry education including single subject teacher preparation in science with a concentration in chemistry. An AA in Chemistry Education would also be an appropriate preparation for students considering chemistry-related interdisciplinary fields.

## Freshman Year

Biology 31
Chemistry 1A**
Chemistry 1B
Math 1*
Math 2
General Education
Sophomore Year
Chemistry 12A
Chemistry 12B
Physics 2A
Physics 2B
General Education
*Fulfills Communication and Analytical Thinking Requirement
**Fulfills Natural Sciences requirement
Recommended Electives are suggested for students interested in taking courses beyond unit requirement for degree.
Environmental Studies 5
Geology 1
Ecology 10

## CHEMISTRY (CHEM)

CHEM 1A GENERAL COLLEGE CHEMISTRY I<br>5 UNITS<br>Introduction to atomic structure, bonding, stoichiometry, thermochemistry, gases, matter and energy, oxidation-reduction, chemical equations, liquids and solids, solutions, chemical energetics and equilibrium concepts. Laboratory includes both quantitative and qualitative experiments. Prerequisites: Mathematics 55 or 55B or 55 Y and Chemistry 31 (both completed with a grade of " $C$ " or higher) or appropriate skill level demonstrated through the Chemistry Placement Process. 3 hours lecture, 6 hours laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B1, B3; IGETC: 5A \& Lab. *CHEM 1A and 30A combined: max UC credit; one course<br>Degree Applicable, Credit<br>Grading Option: GR

## CHEM 1B GENERAL COLLEGE CHEMISTRY II

5 UNITS
Continuation of Chemistry 1A. Includes chemical energetics and equilibria, solutions and ionic equilibria, acid-base chemistry, electrochemistry, coordination chemistry, kinetics, nuclear chemistry, organic chemistry, and the chemistry of family groups of the periodic table. Laboratory emphasizes quantitative techniques, including instrumentation, and qualitative analysis. Prerequisite: Chemistry 1A (completed with a grade of " C " or higher). 3 hours lecture, 6 hours laboratory. Transfer: CSU, UC*; CSU GE: B1, B3; IGETC: 5A \& Lab. *CHEM 1B and 30B combined: max UC credit; one course Degree Applicable, Credit

Grading Option: GR

CHEM 12A ORGANIC CHEMISTRY I
5 UNITS
Hydrocarbons, alkyl halides, alcohols, ethers, and an introduction to aromatic hydrocarbons. Structure, bonding, stereochemistry, conformational analysis, nomenclature, and physical properties in relation to these particular groups of compounds. Emphasis on reactivity and reaction mechanisms. Laboratory work includes microscale, macroscale, spectroscopic, and chromatographic techniques. Chemistry 12A is the first semester in a year-long course in organic chemistry designed for students majoring in chemistry and related disciplines. Prerequisite: Chemistry 1B (completed with a grade of "C" or higher). 3 hours lecture, 6 hours laboratory. Transfer: CSU, UC; IGETC: 5A \& Lab
Degree Applicable, Credit
Grading Option: GR
CHEM 12B ORGANIC CHEMISTRY II
5 UNITS
Continuation of Chemistry 12A with an introduction to the chemistry of aromatics, amines, enols and enolate ions, carboxylic acids, aldehydes, ketones and biochemical topics focusing on structure, synthesis and mechanisms of reaction. Laboratory work in basic techniques, synthetic methods, qualitative, spectroscopic, and chromatographic analysis techniques. Designed for students whose interests require a full year in-depth study of organic chemistry. Prerequisite: Chemistry 12A (completed with a grade of "C" or higher). 3 hours lecture, 6 hours laboratory. Transfer: CSU, UC; IGETC: 5A \& Lab Degree Applicable, Credit

Grading Option: GR
CHEM 30A INTRODUCTORY AND APPLIED CHEMISTRY I 4 UNITS
Chemistry of inorganic compounds, atomic theory, bonding, equations, gas laws, solutions, acid-base theory and oxidation-reduction. Designed to meet the requirements of certain programs in allied health and technological fields and for general education. Prerequisite: Mathematics 65 or 65 B or 65 Y (completed with a grade of " $C$ " or higher). 3 hours lecture, 3 hours laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B1, B3; IGETC: 5A \& Lab. *CHEM 1A and 30A combined: max UC credit; one course
Degree Applicable, Credit Grading Option: GR

## CHEM 30B INTRODUCTORY AND APPLIED CHEMISTRY II <br> 4 UNITS

Continuation of Chemistry 30A with emphasis on organic and biochemical concepts related to human physiological systems. Prerequisite: Chemistry 30A (completed with a grade of "C" or better). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC*; CSU GE: B1, B3; IGETC: 5A \& Lab. *CHEM 1B and 30B combined: max UC credit; one course Degree Applicable, Credit

Grading Option: GR

CHEM 31 INTRODUCTION TO COLLEGE CHEMISTRY 4 UNITS
Elementary concepts of chemistry with emphasis on mathematical calculations; includes nomenclature, stoichiometry, atomic structure, gas laws, and acids and bases. Designed for majors in science and engineering. Prerequisite: Mathematics 55 or 55B or 55 Y (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B1, B3; IGETC: 5A \& Lab. *No UC credit if taken after CHEM 1A or 30A
Degree Applicable, Credit
Grading Option: OP

## COLLOQUIUM

A colloquium is a discussion course which is regularly scheduled to cover material generally not covered in other lower-division, community college courses. Colloquia may include more in-depth discussion and/or presentations and/or focus on methods of analysis or problem-solving specific to certain areas of study and/or fieldbased activities. The purpose is to stimulate serious thought through discussion and analysis. A student is limited to one colloquium each semester. A colloquium may be offered under any subject area contained in the Catalog, using the number 9 . Open to all students in good standing. 2 hours. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit Grading Option: Varies by department

UC credit may be granted only after review of course outline by specific UC campus after transfer.

## COMMUNITY INTEREST STUDIES

## About the Program

Community interest courses are non-credit and include both full-term and short-term courses in a wide variety of course patterns, field studies, seminars, workshops, and other educational activities that will meet the educational needs of the College community. May be offered under any course title contained in the Catalog, using the numbers 200 through 299.

# COMPUTER INFORMATION SYSTEMS 

\author{

- degree $Ө$ certificate
}


## About the Program

Computer Information Systems (CIS) degree and certificate programs are for the business professional with an emphasis on a variety of computer subjects applicable to the "real business world." The types of jobs held by computer professionals fall into several general categories, including computer design and manufacturing, computer sales and service, system development and programming, and computer operations.

The Computer Information Systems (CIS) program is designed to:

- Introduce all students to basic computer literacy skills;
- Build a solid foundation of knowledge to transfer to a four-year institution;
- Enhance, improve, and upgrade current computer skills; and
- Provide classes necessary to acquire computer industry certifications.


## Degrees/Certificates

- Degree:
- AA - Computer Information Systems
- Certificate of Achievement
- Computer Applications Software (Microcomputers)
- Career Certificates:
- Web Development
- Project Management


## Career Opportunities

Include, but are not limited to: administrative assistant, office manager, customer service representative, project manager, event planner, database administrator, help desk specialist, receptionist, technical support specialist, and web site designer/webmaster.

## Transferability

A majority of the Computer Information Systems courses transfer to four-year universities and may fulfill some lower division major requirements. The course content will prepare students for further study at the upper division level in majors such as Information Technology, Management Information Systems, and Networking and Data Communications. Variation in requirements may exist at particular four-year universities; therefore, it is essential that the student refer to the catalog of the prospective transfer institution and consult a counselor.

## AA - Computer Information Systems

Freshman YearComputer Information Systems 50(Introduction to Computing and Information Technology) .....  3
Computer Information Systems 65(Introduction to Desktop Operating Systems).. .2
Computer Information Systems 55(Integrating Office Applications).
Computer Information Systems 88A
(Introduction to Microsoft Word for Windows). ..... 1.5
Computer Information Systems 88B(Advanced Microsoft Word for Windows)1 .5
Computer Information Systems 54
(Excel: Introduction to Spreadsheets) 4

## Sophomore Year

Computer Information Systems 43 (Professional Communications)...... 4
Computer Information Systems 66 (Networking Fundamentals) ........... 3
Computer Information Systems 57
(Access: Introduction to Databases).................................................................... 4
Systems Analysis and Project Management Options*.............................. 5
Programming and Web Design Options *..................................................... 6
General Education Courses
Total Units. .60

System Analysis and Project Management Options
Select from the following for a minimum of 5 units
Computer Information Systems 60 (Systems Analysis and Design)
Computer Information Systems 62 (Project Management)
Computer Information Systems 70 (Project Management Tools)
Programming and Web Design Options
Select from the following for a minimum of 6 units:
Computer Information Systems 80
(Introduction to Programming: Visual Basic)
Computer Information Systems 68
(Using Visual Basic for Microsoft Office Applications)
Computer Information Systems 59A
(Web Development: HTML/XHTML)
Computer Information Systems 59B
(Web Development: DHTML, CSS, JavaScript)
Computer Information Systems 69
(Web Development: Web Design Technologies and Tools)
Computer Information System 46 (Game Programming: 2D and 3D)
Computer Information Systems 59C (JavaScript and Ajax)
Note: Other classes may be substituted to meet the Programming requirement. Please consult Discipline Coordinator, 925.424.1194

## Certificate of Achievement <br> Computer Applications Software (Microcomputers)

Computer Information Systems 50 (Introduction to Computing and Information Technology)
... 3
Computer Information Systems 65 (Introduction to Desktop Operating Systems) or Computer Information Systems 84 (Windows) .............1-2
Computer Information Systems 55 (Integrating Office Applications)... 4
Computer Information Systems 75 (Office Technology/
Communications) $\qquad$ .... 1
Computer Information Systems 43 (Professional Communications) or Computer Information Systems 88A (Introduction to Microsoft Word for Windows)1.5
Computer Information Systems 88B (Advanced Microsoft Word forWindows)1.5
Computer Information Systems 89A (Desktop Presentation) .....  1
Computer Information Systems 89B (Desktop Publishing) .....  2
Computer Information Systems 54 (Excel: Introduction toSpreadsheets) 4
Computer Information Systems 57
(Access: Introduction to Databases) .....  4
Programming Options and Web Design Options ..... 6
Computer Information Systems 80
(Introduction to Programming: Visual Basic)Computer Information Systems 68
(Using Visual Basic for Microsoft Office Applications)
Computer Information Systems 59A
(Web Development: HTML/XHTML)
Computer Information Systems 59B(Web Page Development: DHTML/HXTML, CSS, JavaScript)Computer Information Systems 69
(Web Development: Web Design Technologies and Tools)
Computer Information System 46 (Game Programming: 2D and 3D)

Computer Information Systems 85A (Dreamweaver I) Computer Information Systems 85B (Dreamweaver II) Electives...
Select from the following courses for a minimum of 4 units Computer Information Systems 55B (Advanced MS Office Skills) Computer Information Systems 66 (Networking Fundamentals Computer Networking Technology 51A (A+Hardware Fundamentals) Computer Networking Technology 51B (A+ Operating System Fundamentals) Computer Information Systems 99 (Special Studies)

Total Units... 33-34

## Career Certificate <br> Project Managements

Computer Information Systems 50 (Introduction to Computing and Information Technology) 3
Computer Information Systems 60 (Systems Analysis and Design)........ 3 Computer Information System 62 (Project Management) ......................... 3
Computer Information System 70 (Project Management Tools) ............. 2
$\qquad$

Select from the following courses for a minimum of 4 units
Computer Information Systems 43 (Professional Communications)
Computer Information System 54 (Excel: Introduction to Spreadsheets)
Computer Information System 57 (Access: Introduction to Databases)
Business 56 (Introduction to Management)
Business 52 (Business Communications)

Total Units . 15
§ This certificate is not transcripted. This group of courses provides industrybased professional development. Individual courses will appear on transcript. See a counselor for further information.

## Career Certificate <br> Web Development ${ }^{\$}$

Computer Information Systems 59A (Web Development: HTML/ XHTML). 2

Computer Information Systems 59B (Web Development: DHTML/ XHTLM, CSS, JavaScript). .. 2
Computer Information Systems 59C (Web Development: JavaScript).. 4 Computer Information Systems 85A (Web Development:
Dreamweaver I).2

Computer Information Systems 85B (Web Development:
Dreamweaver II). 2

Electives....................................................................................................................... 4
Select from the following courses for a minimum of 4 units
Computer Information Systems 69
Web Development: Web Design Technologies and Tools)
Computer Information Systems 9993 (Create Web Interactivity with Flash)
Computer Information Systems 9992
(Web Development: PHP Programming, MySQL)
VCOM 53 (Photoshop I for Design)
Total Units... ... 16
§ This certificate is not transcripted. This group of courses provides industrybased professional development. Individual courses will appear on transcript. See a counselor for further information.

## COMPUTER INFORMATION SYSTEMS (CIS)

CIS 8 ESSENTIAL COMPUTING SKILLS 2 UNITS
What everyone needs to know. Fundamental computer competency course designed to develop the basic computer skills and knowledge required in today's technological world. Basic computer competency is no longer a nicety, but rather a necessity. Topics include: essentials of computing, hardware and software concepts, the Internet, ethical issues, and information protection. Practical hands-on applications
will introduce students to the fundamentals of word processing, spreadsheets, presentation software, and email communication. Use of the technology to identify, gather, and analyze information and for communication, and understanding the legal, ethical, and societal implications of technology. No previous experience with computers is required. 1.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 3 times)
Degree Applicable, Credit
Grading Option: OP

## CIS 43 PROFESSIONAL COMMUNICATIONS <br> 4 UNITS

This course is designed to help students develop and refine the written and oral communication skills necessary to communicate effectively in a business environment. This will be accomplished through the planning, composing, and evaluating of written communication; report writing; and oral presentations. Additional focus will be placed on developing interpersonal skills, team participation skills, and professionalism. Students who have completed or are enrolled in Business 43, Computer Networking Technology 43, Computer Science 43, English 43, or Speech 43 may not receive credit. Strongly recommended: Eligibility for English 1A. 4 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
CIS 46 GAME PROGRAMMING: 2D AND 3D 3 UNITS
Want to Play? You have played plenty of games. Now it is time to create your own! Design, develop and test small 2D and 3D computer games using game development software tools such as Scratch, Alice, or similar programming development programs. This first programming course will provide the student with an understanding of the principles of game design, genre-specific design issues, storytelling, image manipulation, and development teams. Programming experience is not required to get started. Although this course has a programming focus, other topics briefly covered will include the history of computer/video game technology, game genres and design principles, and the social impact of games. Students may enroll in Computer Information Systems 46 and/or CS 46 for a total of 2 times. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

## CIS 48 INTRODUCTION TO GAME

PROGRAMMING CONCEPTS 3 UNITS
Want to Play? You have played plenty of games. Now it is time to create your own! You are interested in programming games, but you don't know where to begin. This course covers the basics of game programming with an emphasis on hands-on development of games using a Rapid Application Development prototyping tool such as Dark Basic or BlitzPlus. These tools, based on the Basic language, feature powerful graphics engines, and make it possible to demonstrate high-level subjects using a minimum amount of code. This first programming course provides experience and skills writing every element of your first video game-from graphics and animation to sound and music. Programming experience is not required to get started. Although this course has a programming focus, other topics briefly covered will include the history of computer/video game technology, game genres and design principles, and the social impact of games. Students may enroll in CIS 48 and/or CS 48 for a total of 2 times. 2.5 hours lecture, 1.5 hours (May be taken 2 times)
Degree Applicable, Credit Grading Option: OP

## CIS 50 INTRODUCTION TO COMPUTING AND INFORMATION TECHNOLOGY

3 UNITS
A comprehensive introductory overview of computers and information technology. Topics include: basic computer concepts and terminology, hardware, software, data and procedures, data communications, Internet, computer programming concepts, the
system development process and new emerging technologies．Students will interactively solve applied problems utilizing software productivity tools such as：word processors，spreadsheets，databases，Email，WWW， and programming languages such as Visual Basic or HTML．Introduce the analytical，written and oral communication skills necessary to communicate effectively in a computing environment． 3 hours lecture， 1 hour laboratory．AA／AS GE．Transfer：CSU，UC
Degree Applicable，Credit
Grading Option：OP

CIS 54 EXCEL：INTRODUCTION TO SPREADSHEETS 4 UNITS Introductory level spreadsheet class using Microsoft Excel to create a variety of spreadsheets with emphasis on business application programs．Identification of an Excel worksheet，adding numbers and text to a worksheet，calculations using functions and formulas，modify， change and format cell entries，save，retrieve and print a worksheet． Includes functions，templates，data query，charts，and macros．Strongly recommended：Computer Information Systems 50． 3 hours lecture， 3 hours laboratory．Transfer：CSU（May be taken 2 times） Degree Applicable，Credit

Grading Option：OP
CIS 55 INTEGRATING OFFICE APPLICATIONS 4 UNITS
Develop a beginning／intermediate level of skills using the Microsoft Office features of Word，Excel，Access，and PowerPoint to design， produce and integrate：documents，worksheets，databases and professional presentations．The use of Object Linking and Embedding （OLE）to create integrated office documents that promote information sharing and collaboration are covered along with how to create simple integrated office documents on the Web．This course emphasizes workplace communications and information processing skills and standards．Students will complete integrated projects that apply technology to business tasks and represent what is required in an actual business environment using the components of Microsoft Office （Word，Excel，PowerPoint，Access．Strongly recommended：Computer Information Systems 50.3 hours lecture， 3 hours laboratory．Transfer： CSU（May be taken 2 times）
Degree Applicable，Credit
Grading Option：OP
CIS 55B ADVANCED MS OFFICE SKILLS
3 UNITS
Provide students an opportunity for advanced study using the MS Office software suite．Portions of the course will be devoted to an overview of advanced topics in Word，Excel，PowerPoint and Access． Extends the fundamental knowledge of MS Office to incorporate and emphasize the integration capabilities among the individual applications．This class offers a case－based，problem－solving approach to learning the essentials of how to use the components of the Office suite together to build a portfolio of documents for a company that demonstrate your ability to use and integrate Word，Excel，PowerPoint and Access．This may include business cards，letterhead，brochures， spreadsheets，databases，invoices，presentation reports，web pages and more．Strongly recommended：Computer Information System 55. 2 hours lecture and 3 hours laboratory．Transfer：CSU Degree Applicable，Credit

Grading Option：OP
CIS 55C MICROSOFT OFFICE：WHAT＇S NEW 2 UNITS
Explore the new features，enhancements，and added functionality of the latest version of Microsoft Office！Students already familiar with Word，Excel，PowerPoint，and Access applications，will explore the differences，new functionality and new features of the newest release of Word，Excel，PowerPoint，Access，and supporting Office applications． Strongly recommended：Computer Information Systems 55． 1.5 hours lecture， 1.5 hours laboratory．Transfer：CSU（May be taken 3 times） Degree Applicable，Credit

Grading Option：OP
CIS 55D OFFICE WEB APPS，COLLABORATION，

## CLOUD COMPUTING

2 UNITS
Over the Internet；create browser－based Office documents（word documents，spreadsheets，presentations，forms），securely save and
share Office documents，and collaborate online with colleagues． Explore Google Docs，Windows Web Apps，and other online collaboration tools．Strongly recommended：Computer Information System 55． 1.5 hours lecture， 1.5 hours laboratory．Transfer：CSU （May be taken 4 times）
Degree Applicable，Credit Grading Option：OP

## CIS 57 ACCESS：INTRODUCTION TO DATABASES 4 UNITS

Introduction to Database Management Systems，a computer program that is used to organize，store，and retrieve information．Understanding of data，file and database concepts using Microsoft Access with emphasis on business applications．Identify and evaluate client needs／ requirements and translate those needs into a working database application model．Integrate Access data with other Microsoft applications，such as Word and Excel．Strongly recommended： Computer Information Systems 50，and 55． 3 hours lecture， 3 hours laboratory．Transfer：CSU（May be taken 2 times）
Degree Applicable，Credit
Grading Option：OP

## CIS 59A WEB DEVELOPMENT：HTML／XHTML 2 UNITS

Introduction to publishing on the World Wide Web（WWW）．Topics include：creating Web pages with markup languages，including HTML／ XHTML，file management for the Web，and uploading files via File Transfer Protocol（FTP）to a web server．This course includes coding with mark up languages，cascading style sheets，and introduction to scripting（JavaScript），the use of images and other media（audio，video） on the Web，and interactive tools like forms and image maps．This course prepares apprentice Web designers and developers to identify the information needs of a client，design appropriate WWW solutions， and implement them．Strongly recommended：Computer Information System 50． 2 hours lecture， 1 hour laboratory．Transfer：CSU（May be taken 2 times）
Degree Applicable，Credit Grading Option：OP

## CIS 59B WEB DEVELOPMENT：

DHTML／XHTML，CSS，JAVASCRIPT 2 UNITS
An expansion of HTML web authoring capabilities that includes Dynamic HTML／XHTML，cascading style sheets，and JavaScript．This course is designed to offer students a case－oriented，problem－solving approach to learning beyond the basics of HTML／XHTML．Students will quickly review all the most important topics of HTML／XHTML， from the basics of creating Web pages with graphics and links，using tables，and controlling page layout with frames，to study more advanced topics，including cascading style sheets，programming with JavaScript and JavaScript objects and events，creating a multimedia Web page，creating a Web page with forms，working with dynamic content and layout，controlling mouse and keyboard events，and creating new frames and windows．Strongly recommended：Computer Information Systems 59A． 2 hours lecture， 1 hour laboratory．Transfer： CSU（May be taken 2 times）
Degree Applicable，Credit
Grading Option：OP
CIS 59C WEB PROGRAMMING－JAVASCRIPT AND AJAX 4 UNITS
Develop client－side，interactive webpages using JavaScript and asynchronous JavaScript and XML（AJAX）scripting languages．Write JavaScript scripts that manipulate with the JavaScript Document Object Model（DOM），control program flow，validate forms，animate images，target frames，and create cookies．Implement AJAX techniques that uses JavaScript－based objects to retrieve responses from a web server in a dynamic way，allowing for instant，on page updating，a key element in Web 2．0．Strongly Recommended：Computer Information Systems 50． 3 hours lecture， 3 hours laboratory．Transfer：CSU
（May be taken 2 times）
Degree Applicable：Credit Grading Option：OP


#### Abstract

CIS 60 SYSTEMS ANALYSIS AND DESIGN 3 UNITS Principles of systems analysis; techniques of analysis and design. This course will explore systems analysis and design from the early days of second generation systems development up to and including graphical user interface design and development (GUI). Exercises and case projects to develop knowledgeable use of the entire system development life cycle. Data gathering, problem solving, data flow diagrams, decision tables, pseudocode, database design and implementation, program coding and the use of Computer-Aided Software Engineering (CASE) tools. Strongly recommended: Computer Information Systems 50.3 hours lecture, 1 hour laboratory. Transfer: CSU Degree Applicable, Credit Grading Option: OP


CIS 62 PROJECT MANAGEMENT 3 UNITS
Using the Project Management Institute's (PMI) Guide to the Project Management Body of Knowledge (PMBOK), learn the basic characteristics of projects and project management, with emphasis on the five PMBOK project process groups of initiating, planning, executing, controlling, and closing. Explore the nine knowledge areas of project integration, scope, time, cost, quality, human resources, communication, and risk and procurement management. This introductory course covers the terminology you will need to know, how all the project management processes are linked together, the key areas of expertise you need to know to manage projects successfully. Review objectives of industry certifications including: Project+, CAPM, PMP. This course focuses on developing and applying management and business skills in typical technical and business environments and provides an introduction to the field of project management. Strongly recommended: Computer Information Systems 60. 3 hours lecture. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

## CIS 65 INTRODUCTION TO DESKTOP

 OPERATING SYSTEMS2 UNITS
By performing numerous hands-on labs, students in this class will gain an understanding of desktop operating systems using command line and GUI interfaces, such as Windows XP, 2003, 2008, Win7, UNIX/ Linux, Apple, and other emerging operating systems, including online web-based desktops and cloud computing. Students will use virtualization software VMware, MS VirtualPC, or Sun VirtualBox to install and configure operating systems and user applications on a microcomputer system. Students will also experiment with online desktops-like AjaxWindows, Schmedley, Glide, Google Docs, eyeOS Operating systems for cell phones (Google Android Chrome O?S, Iphone) will be demonstrated. The role of hardware, application software and the operating system and how they interact with each other will be explored. Students who have completed or are enrolled in Computer Information Systems 65 may not receive credit. Strongly recommended: Computer Information Systems 50. 2 hours lecture, 1 hour laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
CIS 66 NETWORKING FUNDAMENTALS
3 UNITS
This course is a foundation course that explains and describes how computer networks are designed, installed, and administrated. Introduction to communications concepts, data communications, networking, and Internetworking. Review of major network components: hardware, software, protocols (TCP/IP, IPX/SPX, NETBEUI), topologies, and cabling. Overview of LAN administration, setup, and installation. Preparation for the Network+ certification exam. Students may receive credit for either Computer Information Systems 66 or Computer Networking Technology 52, but are limited to a total of two times in any combination. Strongly recommended: Computer Information Systems 50. 3 hours lecture, 1 hour laboratory. Transfer: CSU (May be taken 2 times). Degree Applicable, Credit

Grading Option: OP

## CIS 68 USING VISUAL BASIC FOR MICROSOFT

 OFFICE APPLICATIONS2 UNITS
Visual Basic for Applications, a programming language provided with Microsoft Office Suite, provides a common programming language for customizing Microsoft Office applications. With VBA, students will develop customized applications built around the standard Office applications of Word, Excel, PowerPoint, and Access for specific business needs. In this class students will learn how the Microsoft Office suite is related to Visual Basic for Applications (VBA). They will also become acquainted with the Visual Basic for Applications Integrated Development Environment (VBA IDE). They will learn to open the VBA IDE in multiple different Office applications. They will also create some simple programs into the VBA IDE and learn how to run those programs. Finally, students will learn how to create and run a macro and view the code created by the macro. Strongly recommended: Computer Information Systems 55. 2 hours lecture, 1 hour laboratory. Transfer: CSU (May be taken 2 times). Degree Applicable, Credit

Grading Option: OP

## CIS 69 WEB DEVELOPMENT: WEB DESIGN TECHNOLOGIES AND TOOLS

2 UNITS
A survey of the languages and tools used to author Web pages. Introduction to the basics of HTML/XHTML and Cascading Style Sheets (CSS) and explains how to develop basic Web pages using Dreamweaver authoring tool. Learn how to create and manipulate images and animation with Adobe Photoshop, ImageReady, Fireworks, and Flash. Add interactivity to your Web pages using JavaScript and DHTML. Students will create many different applications ranging from simple Web pages that link to other Web pages, animations that run within a Web page, and JavaScript programs that interact with visitors to a Web site. Strongly recommended: Computer Information Systems 59A. 2 hours lecture, 1 hour laboratory. Transfer: CSU (May be taken 2 times).
Degree Applicable, Credit
Grading Option: OP
CIS 70 PROJECT MANAGEMENT TOOLS 2 UNITS
Microsoft Project, Visio, and more. Hands-on overview of various
types of project management software applications that help manage and track projects and tasks, visually draw network and process flow diagrams and create diagrams of relationships between ideas or other pieces of information. Software to include desktop and/or web-based versions of proprietary and/or open source software such as Microsoft Project/Open Workbench, Visio, Mind Mapping software. 1.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken two times) Degree Applicable, Credit

Grading Option: OP

## CIS 71A KEYBOARDING (THE ALPHABET) 1 UNIT

Introduction to the alphabet letter keys on the computer keyboard for touch-typing. Learn basic keyboarding techniques for accuracy and speed. This course is the first in a series of sequential courses in Keyboarding instruction. Students are advised to take these courses in sequence for best training results. 3 hours laboratory. (May be taken 3 times) Degree Applicable, Credit

Grading Option: OP
CIS 71B KEYBOARDING (NUMBERS AND SYMBOLS) 1 UNIT
Introduction to the numbers and symbol keys on the computer keyboard for touch typing. Review of alphabetic keys and common punctuation marks. Speed building and accuracy improvement. Strongly recommended: CIS 71A 3 hours laboratory. (May be taken 3 times) Degree Applicable, Credit

Grading Option: OP

## CIS 71C SKILLS IMPROVEMENT

 1 UNITDevelopment of keyboarding skill for those students who have learned the location of the keys on the keyboard by touch and are ready to increase speed. Practice keyboarding control of speed and accuracy on straight copy, rough draft copy, and copy with numbers and symbols. Skill progress is measured by keying text within specified time limits. This course is the third module in a sequential series of beginning keyboarding instruction. Strongly recommended: Computer Information Systems 71B. 3 hours laboratory. (May be taken 3 times) Degree Applicable, Credit

Grading Option: OP

## CIS 72A DATA MANAGEMENT

解 numeric，geographic，and subject filing．Basic principles of filing and effective records management for both paper and electronic filing systems．Introduction to database functions，such as enter，editing， finding，and deleting records，creating queries，and printing report． 3 hours laboratory．Transfer：CSU（May be taken 2 times）Degree Applicable，Credit
Grading Option：OP

## CIS 72B SPREADSHEET INTEGRATION WITH WORD PROCESSING

1 UNIT
Basic usage of spreadsheet software in document reporting and presentation．Integration of spreadsheets with Word，PowerPoint，and Access．Strongly Recommended：Computer Information Systems 50 and Computer Information Systems 88A． 3 hours laboratory．Transfer：CSU （May be taken 2 times）
Degree Applicable，Credit Grading Option：OP

CIS 75 OFFICE TECHNOLOGY／COMMUNICATIONS 1 UNIT Overview of various technologies（such as bulletin boards， teleconferencing，shared resources，voice－messaging systems，and online services）used for communicating internally and externally with microcomputers．Hands－on practice with electronic mail，the Internet，MS Outlook，and integrating the MS Office Suite to perform administrative tasks and functions for managing the office．Strongly recommended：Eligibility for English 1A and Computer Typing at 30 wpm． 0.5 hour lecture， 1.5 hours laboratory．
Degree Applicable，Credit
Grading Option：OP
CIS 77 VIRTUAL OFFICE／SOHO TECHNOLOGIES 2 UNITS
Examine from a practical viewpoint the technologies，technical terminology，installation，and operation of a small office／home office （SOHO）or virtual office．Explores steps in creating a virtual office， setting up a home office using technology to support a business， and other topics related to communication and business operations． Hardware，software，tools and gadgets for the virtual，computer－ based small office／home office business are evaluated．Strongly recommended：Computer Information Systems 50． 2 hours lecture， 1 hour laboratory．Transfer：CSU
Degree Applicable，Credit
Grading Option：OP

CIS 78 BECOMING A VIRTUAL PROFESSIONAL 3 UNITS
A Virtual Professional is an independent entrepreneur that provides their services on a contractual basis using today＇s advanced technology from their own office or remote location．Services offered by each Virtual Professional differ according to their own skills．Students will explore the career opportunities available to administrative support personnel or＂virtual assistants＂or other professionals offering their services in a virtual environment．This course provides information and guidance in creating a virtual office．Topics include：marketing your abilities，setting up an in－home office，using technology to support your business， coping with working alone，electronic communication，and professional networking．Strongly recommended：Computer Information Systems 50. 3 hours lecture， 1 hour laboratory．Transfer：CSU
Degree Applicable，Credit
Grading Option：OP

CIS 79 MEDICAL OFFICE PROCEDURES
3 UNITS
Medical office principles and procedures to include telecommunications， scheduling appointments，office equipment，medical documents and word processing，managing medical records，banking，payroll，expense reports，petty cash，billing，recordkeeping，postal services，health insurance，coding，and utilizing the Internet for online financial services and resources．The importance of medical ethics in application of professional office behavior．Overview of medical law and careers in medical office environment．Strongly recommended：Computer Information Systems 8 and Computer Information Systems 88A． 2 hours lecture， 3 hours laboratory．Transfer：CSU
Degree Applicable，Credit
Grading Option：GR

## CIS 80 INTRODUCTION TO PROGRAMMING： VISUAL BASIC <br> 4 UNITS

Introduction to fundamental programming concepts and logic using Visual Basic．NET to emphasize problem－solving techniques using structured design and development．Extensive coverage of the Visual Basic programming language using the Microsoft．Net and Visual Studio IDE environment．Students will construct forms and define procedures，events，properties，methods and objects to solve a variety of business－oriented problems and to create Visual Basic applications that deploy on multiple platforms such as Windows OS， Office applications，Web pages，cell phones，and handheld computers． Strongly Recommended：Computer Information Systems 50.3 hours lecture， 3 hours laboratory．Transfer：CSU（May be taken 2 times） Degree Applicable，Credit

Grading Option：OP

CIS 81 DIGITAL MEDIA SKILLS IN THE WORKPLACE I 2 UNITS Increased workplace demand for digital media skills－planning， designing，creating，maintaining and managing effective communications using different forms of digital media：photo imaging capture and manipulation，video／audio production，web site／blog／ podcast publishing．Via instructor－led tutorials and media－intensive projects，students will learn introductory hands－on techniques for producing beginning－level self－running presentations，multimedia web sites，digital images，and streaming audio and video． 1.5 hours lecture， 1.5 hours laboratory．Transfer：CSU（May be taken 4 times） Degree Applicable，Credit

Grading Option：OP

## CIS 84 WINDOWS

1 UNIT
Self－paced，hands－on class introducing Microsoft Windows operations Participants will become familiar with the windows environment． Learn techniques to manage files and folders，use Microsoft Windows＇ accessories programs，such as WordPad，Calculator，and Paint，and share data between programs． 0.5 hours lecture， 1.5 hours laboratory． Degree Applicable，Credit

Grading Option：OP
CIS 85A WEB DEVELOPMENT：DREAMWEAVER I 2 UNIT
This course is an introductory course primarily for new or prospective Web designers who want to develop Web pages／sites using Dreamweaver Web authoring software．Topics include；planning， designing，creating，editing，and publishing Web pages with emphasis on hyperlinks，formatting text with CSS，graphics，lists，tables，frames， and basic rollovers．Students will learn to plan，build，organize，upload and manage Web pages as a Web site．Strongly recommended： Computer Information Systems 50． 2 hours lecture， 1 hour laboratory． Transfer：CSU（May be taken 2 times）
Degree Applicable，Credit
Grading Option：OP

## CIS 85B WEB DEVELOPMENT：DREAMWEAVER II 2 UNIT

In this course，you＇ll learn and demonstrate intermediate web page and site design skills using Dreamweaver web authoring software． Some powerful features lie just below the surface in Dreamweaver， including precision positioning through layers，expanded interactivity， and even the ability to create JavaScript and Cascading Style Sheets without wading through reams of code．Students will learn to plan， build，organize，upload and manage Web pages as a Web site．Strongly recommended：Computer Information Systems 85A． 2 hours lecture， 1 hour laboratory．Transfer：CSU（May be taken two times） Degree Applicable，Credit

Grading Option：OP

## CIS 88A INTRODUCTION TO MICROSOFT WORD 1．5 UNITS

Develop the skills needed in the workplace to produce common business documents．Topics include document creation and editing； use of Microsoft Word features to apply character and paragraph formatting；creating and formatting tables，enhancing visual appeal by incorporating graphics elements，and printing documents．Strongly recommended：Computer Information Systems 71A． 1 lecture hour； 1.5 laboratory hours．Transfer：CSU（May be taken 3 times）

Degree Applicable，Credit
Grading Option：OP

## CIS 88B ADVANCED MICROSOFT

 WORD FOR WINDOWS1.5 UNITS

Advanced word processing techniques used to produce complex business documents. Includes topics such integrating graphics and shapes into documents, formatting multiple page reports, creating tables of contents and indexes, inserting footnotes/endnotes and bibliographies, creating and using macros, and form templates, and integration with other programs such as Excel. Strongly recommended: Computer Information Systems 88A. 1 lecture, 1.5 laboratory. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP
CIS 89A DESKTOP PRESENTATION
Desktop presentation design techniques and enhancements. Application using current desktop presentation software. Hands-on experience creating, saving, printing slide shows. 6 week class. .5 hour lecture. 1.5 hours laboratory. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP
CIS 89B DESKTOP PUBLISHING 2 UNITS
Design professional and customized business cards, letterheads, envelopes, mailing labels, and brochures quickly and easily using Microsoft Publisher. 1 hour lecture. 1.5 hours laboratory.Transfer: CSU Degree Applicable, Credit

Grading Option: OP

CIS 90 TODAY'S TECHNOLOGY TOOLS 2 UNITS
Technology is always changing; this fun, fast-paced, dynamic class is a hands-on exploration of today's hot new technologies. Students will identify today's new technology trends, understand how and why to appropriately incorporate these technology tools into school/ workplace activities. Today, with student input, topics could include: new web tools (instant messaging, podcasting, blogs, wikis, social networking sites, virtual worlds), new websites, collaboration software, tech gadgets, and more. Tomorrow? to be determined 1.5 hours lecture/1.5 hours laboratory. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## CIS 90.01 [9001] DATABASE MANAGEMENT SYSTEMS 2 UNITS

This course provides students with a vendor-neutral introduction to and an overview of database systems including database design, Entity Relationship data modeling, the relational model, optimizing databases through normalization, data administration and SQL. Application of knowledge with hands-on experience with a database management system. 2 hours lecture. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP
CIS 90.02 ORACLE: DATABASE DESIGN AND [9002] SQL PROGRAMMING 3 UNITS
In Database Design, students learn to analyze business scenarios and create data models, a conceptual representation of an organization's information. In Database Programming with SQL, students implement their database design by creating a physical database using Oracle Structured Query Language (SQL) to create, query, manipulate, and control access to the data in a relational database.. The SQL commands, functions, and operators supported by Oracle as extensions to standard SQL are emphasized. Students learn to create and maintain database objects such as tables, indexes, views, constraints, and sequences. Prepare students for the Oracle Certified Professional (OCP) exam. Strongly recommended: Computer Information System 57. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

## CIS 90.03 ORACLE: DATABASE PROGRAMMING [9003] WITH PL/SQL

This course introduces students to Procedural Language/Structured Query Language (PL/SQL) through a project-based approach. Learn procedural logic constructs such as variables, constants, conditional
statements and iterative controls; then execute, and manage PL\} SQL stored program units such as procedures, functions, packages, and database triggers. Learn the basic functionality of how to debug functions and procedures using the SQL Developer Debugger. Manage PL/SQL subprograms, triggers, declaring identifiers and trapping exceptions. Strongly recommended: Computer Information System 90.02. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP
CIS 90.04 ORACLE: DATABASE
[9004] ADMINISTRATION
3 UNITS
This course is designed to give students a firm foundation in basic administration of Oracle latest Database. In this class, students learn how to install and maintain Oracle Database. Gain a conceptual understanding of the Oracle database architecture and how its components work and interact with one another. Learn to create an operational database and properly manage the various structures in an effective and efficient manner including performance monitoring, database security, user management, and backup/recovery techniques. The lesson topics are reinforced with structured hands-on practices. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP

## CIS 90.10 WRITING SQL QUERIES USING

 [9010] MICROSOFT SQL SERVER 2 UNITS Introduction to how client/server architecture works, and examines the various database and business tasks that can be performed by using the components of Microsoft SQL Server. Learn SQL Server database concepts such as relational databases, normalization, and database objects. In addition, the student will learn how to use T-SQL to query databases and generate reports. 1.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 2 times)Degree Applicable, Credit
Grading Option: OP

## CIS 91 INTEGRATING SOFT SKILLS WITH TECHNICAL PROFICIENCY

0.5-2 UNITS
"Soft Skills" or Workplace Readiness Skills result in effective job performance or college success. Soft skills complement hard skills, which are the technical requirements of a job. Combine technical proficiency with soft skills employability and foundation skills such as verbal and written communication, problem-solving and decision marking, and teamwork. Students enroll in one or more of four 8-hour seminars that focus on these soft skills: 1) effective written communication; 2) effective verbal/non-verbal communication; 3) problem solving and decision marking, or; 4) technology proficiency assessment. These skills have been identified as critical to the success of all IT professionals. 8 hours lecture $/ 1$ hour laboratory for each of the four above seminars, 0.5 unit each seminar. Transfer: CSU (May be taken 4 times - one time per module)
Degree Applicable, Credit
Grading Option: OP
CIS 91.01 [9101] INTERNET BUSINESS FUNDAMENTALS 1.5 UNITS Internet Business Fundamentals prepares students to work effectively in today's business environment using the Internet's wide array of useful resources. Learn about the tasks involved in various Web Technology job roles and the skills and technologies to perform them. Review Internet connection methods, protocols, the domain name system, and cloud computing. Study functions of Web browsers, the components of Web addresses, the use and control of cookies. Configure browser preferences, plug-ins. Study databases as they relate to Web search engines, and use search engines to conduct basic and advanced Web searches. Configure e-mail clients and use e-mail for communicating effectively over the Internet using modern Web technologies and social networking and collaboration tools. Learn about the risks associated with being connected to the Internet, and about the security measures that can keep your computer system and your personal information
secure. NOTE: This course is one of a series in the Certified Internet Web Professional (CIW: www.ciwcertified.com) program. 1 hour lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP

## CIS 91.02 NETWORK TECHNOLOGY

 [9102] FOUNDATIONS 1.5 UNITS Network Technology Foundations is an accelerated networking course designed to teach essential networking concepts, skills, and practices. Identify various network components and protocols that enable users to share data. Explore different types of transmission media, and how network architecture and topologies provide for efficient and secure communication. Review the OSI reference model and its relationship to packet creation, and compare and contrast the OSI model with the Internet architecture model. Study the functions and features of internetworking server types, and the benefits of implementing a Content Management System (CMS). Learn about the importance of routing, and explore IP addressing, IP address classes and subnet masks. Review essential network security concepts, Internet-based challenges facing today's users, and methods you can use to secure networks and network transmissions, including authentication, encryption and firewalls. NOTE: This course is one of a series in the Certified Internet Web Professional (CIW: www.ciwcertified.com) program. 1 hour lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 3 times) Degree Applicable, CreditGrading Option: OP

## CIS 91.03 WEB SITE DEVELOPMENT [9103] FOUNDATIONS

2 UNITS
Web Site Development Foundations teaches essential Web page development skills and how to work as a productive part of a Web site development team. Develop Web sites using HTML/XHTML; write source code manually and using graphical user interface (GUI) authoring tools. Insert images, hyperlinks, tables, forms, frames, using style sheets to format Web page content, and implement fundamental design concepts. Validate your XHTML code, recognizing the importance of Internet marketing and search engine optimization. Connect Web pages to databases, identify e-commerce solutions, and how link Web site development to business goals. Throughout the course, students will learn how sites are developed as managed projects. NOTE: This course is one of a series in the Certified Internet Web Professional (CIW: www.ciwcertified.com) program. 2 hours lecture. Transfer: CSU (May be taken 3 times)
Degree Applicable, Credit
Grading Option: OP
CIS 91.04 [9104] WEB DESIGN SPECIALIST
Design and publish Web sites using popular production tools such as Dreamweaver, Flash, Expressions, HTML/XHTML. General topics include Web Site Development Essentials (site development process, customer expectations, ethical and legal issues), Web Design Elements (aesthetics, user's experience, navigation, usability, accessibility), Basic Web Technologies ( HTML/XHTML, image files, GUI site development applications, site publishing and maintenance) and Advanced Web Technologies (multimedia and plug-in technologies, client-side and server-side technologies, and Web databases). In this course, you will work with popular production tools such as Microsoft Expression, Adobe Dreamweaver and Flash. Study design and development technologies such as Cascading Style Sheets (CSS), Extensible Markup Language (XML), JavaScript, Java applets, Dynamic HTML, plug-ins, multimedia and databases. Learn how Web sites are developed as managed projects, relate Web site development to business goals, and apply guidelines for user accessibility to Web site development. Consider site design from several perspectives; design from the Web user's perspective so that you can identify with user interests and needs. You will also assume the roles of Web designer and project manager, as you work through the Web site development process by evolving a Web presence site into a working prototype Web
project. . NOTE: This course is one of a series in the Certified Internet Web Professional (CIW: www.ciwcertified.com) program. Strongly recommended: Computer Information System 59A. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 3 times) Degree Applicable, Credit

Grading Option: OP

## CIS 91.05 [9105] E-COMMERCE WEB TECHNOLOGY 2 UNITS

E-Commerce strategies and practices show how to conduct business online and manage the technical issues associated with constructing an e-commerce Web site. Learn the similarities and differences between traditional and electronic commerce, and will explore e-commerce technologies at various levels of sophistication. NOTE: This course is one of a series in the Certified Internet Web Professional (CIW: www.ciwcertified.com) program. Strongly recommended: Computer Information Systems 59A. 1.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 3 times)
Degree Applicable, Credit Grading Option: OP
CIS 94 COMPUTER SKILLS FOR THE WORKPLACE 2 UNITS
Fundamental computer competency course designed to develop the basic computer skills and knowledge required in today's business environment. Basic computer competency is no longer a nicety, but a necessity. Topics include; essentials of computing, hardware and software concepts, the Internet, ethical issues, and information protection. Practical hands-on applications will introduce students to the fundamentals of word processing, spreadsheets, presentation software, database, and email communication and basic keyboarding techniques for accuracy and speed. Use of technology to identify, gather, and analyze information and for communication, and understanding the legal, ethical and societal implications of technology. No previous experience with computers is required. 1 hour lecture, 3 hours laboratory. Transfer: CSU (May be taken 3 times) Degree Applicable, Credit

Grading Option: OP
CIS 95 DIRECTED WORK EXPERIENCE PRACTICUM 1-3 UNITS Earn college credit for learning while working. Occupational Work Experience is college-supervised employment of students that extends classroom learning to the workplace and relates to the students' educational occupational goals. Students must have a job (paid, volunteer, or internship) in a licensed business that directly relates to their goals. Through a set of individualized learning objectives established by the student, supervisor, and instructor, each student will work with and learn from professionals in their field of study. These experiences will enable students to improve job skills, analyze career opportunities and requirements, and apply knowledge and skills gained in the traditional classroom in a work-site situation. Corequisite: Computer Information Systems 96. 5-15 hours or more of paid employment per week or 4-12 hours of volunteer work per week. May be repeated to a total of 16 units, including CIS/CNT/CIS 96. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
CIS 96 DIRECTED WORK EXPERIENCE SEMINAR 1 UNIT
Earn college credit for learning while working. Focal point for the coordination of the student's program of study with college-supervised part-time or full-time employment in the student's major field. Case studies, job-related problems, student cases and presentations, and material related to employment, organizations and management are discussed; emphasis on building strong working relationships with supervisors, subordinates, and co-workers. Course content will serve as a guideline as you go through the employment cycle of setting goals, researching careers, applying for and getting a job, and dealing with workplace issues. Corequisite: Computer Information Systems 95. May be repeated to a total of 16 units, including CIS/CNT/CIS 95. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

# COMPUTER INFORMATION SYSTEMS - 

CIS 99 SPECIAL STUDIES .3-3 UNITS
Special studies in a specialized technical-vocational major. Typically offered for a particular occupation or skill. Courses may be offered under any course title contained in the Catalog, using the number 99. 0.3-9 hours. Refer to the Schedule of Classes under Computer Information Systems 99, Special Studies, for a list of the current offerings. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
REQUEST FOR COURSE SUBSTITUTION-SPECIAL STUDIES (CIS 99)
Students who wish to fulfill a degree or certificate program requirement with a Special Studies (CIS 99) course should complete a Request for Course Substitution or Waiver form. This form (available from the Division Offices and Counseling) should be completed by students in consultation with academic faculty in order for Special Studies to be accepted in fulfillment of the degree and certificate requirements

# COMPUTER NETWORKING TECHNOLOGY 

degree certificate

## About the Program

The Computer Networking Technology program prepares students for a variety of career opportunities including the networking field. CNT classes prepare students for Cisco CCNA and CCNP certification tests, Microsoft MCSE and MCSA tests, and CompTIA Net+, Security+ and A+ tests. Constantly evolving and modernizing classes include targeted skills training in Emerging Technologies like Wireless, VoIP, VPN, Computer Forensics, Incident Response, Network Security and OS Hardening. Many of these subjects have become basic required knowledge even in other career fields. Students in Business, the Sciences, Arts and Administration of Justice will all need skills in network technologies to excel in their fields. The Certifications for Achievement and Career Certifications provide quick paths to validate training in today's important tech knowledge areas. The program also includes an AS degree in Network Security Administration. This degree incorporates the latest in Emerging Technologies and skills employers are seeking.

## Degrees/Certificates

- Degrees:
- AS - Network Security and Administration
- Certificates of Achievement:
- Cisco Network Associate
- Cisco Network Professional
- Career Certificates:
- Computer Desktop OS Security
- Computer Forensics Examiner
- Computer Network Administration (Microsoft)
- Computer Network Technician
- Emerging Technologies
- Network and Wireless Security
- TCP/IP Network Analysis


## Career Opportunities

Include but are not limited to: computer technician, customer service representative, help desk specialist, network administrator, and technical support specialist.

## Transferability

A majority of the Computer Networking Technology courses transfer to four-year universities as elective units. The course content will prepare students for further study at the upper division level in majors such as Information Technology, Management Information Systems, and Networking and Data Communications. Variation in requirements may exist at particular four-year universities; therefore, it is essential that the student refer to the catalog of the prospective transfer institution and consult a counselor.

## AS - Network Security and Administration

Freshman Year
Computer Networking Technology 50 (Introduction to Desktop Operating Systems) or Computer Information Systems 65 (Introduction to Desktop Operating System $\ldots$ Computer Networking Technology 51A
(A+ Hardware Fundamentals)2
Computer Networking Technology 51B (A+ Operating System Fundamentals) ..... 2
Computer Networking Technology 52 (Networking Fundamentals)Computer Networking Technology 62A(Cisco Networking Academy CCNA 1\&2) .4
Electives Tracks* ..... 6-9
General Education Courses§
Sophomore Year
Computer Networking Technology 62B (Cisco Networking AcademyCCNA 3-4). .4
Computer Networking Technology 43 (Professional Communications)....... 4Electives Tracks*6-9
General Education CoursesTotal Units Required.60
§Program-based General Education 3 unit requirement:
Computer Information Systems 50
*Electives Tracks
Select from the following tracks for 12-18 units:
CCNP Track
CNT 63 (CISCO CCNP Semester 5 - Advanced Routing)
CNT 64 (CISCO CCNP Semester 6 - Remote Access)
CNT 65 (CISCO CCNP Semester 7 - Multilayer Switching)
CNT 66 (CISCO CCNP Semester 9 -Internetworking Troubleshooting)

## Network and Wireless Security Track

CNT 67 (Wireless Networks and Security CWNA)
CNT 68 (Introduction to Computer Forensics)
CNT 69 (Network Security Sec+)

## Network Administration Track

CNT 55 (Windows Server)
CNT 56 (Implementing Windows Network Infrastructure)
CNT 57 (Implementing Windows Active Directory Services)

## Network Analysis Track

CNT 74.1 (Introduction to Linux/Unix, Linux+)
CNT 75.1 (WhiteHat Hacker Penetration Testing)
CNT 75.2 (Wireshark, TCP/IP Analysis and Network Troubleshooting)
Computer Operating System Security Track
CNT 55 (Windows Server)
CNT 69 (Network Security Sec+)
CNT 74.1 (Introduction to Linux/Unix, Linux+
CNT 75.2 (Wireshark, TCP/IP Analysis and Network Troubleshooting)
Computer Forensics Track
CNT 68 (Computer Forensics I)
CNT 70 (Computer Forensics II)
CNT 75.1 (WhiteHat Hacker Penetration Testing)
Note: Request for Course Substitution-Special Studies (CIS 99)
Students who wish to fulfill a degree or certificate program requirement with a

Special Studies（CIS 99）course should complete a Request for Course Substitution or Waiver form．This form（available from the Division Offices and Counseling） should be completed by students in consultation with academic faculty in order for Special Studies to be accepted in fulfillment of the degree and certificate requirements．
Certificate of Achievement
Cisco Network Associate
Computer Networking Technology 50
（Introduction to Desktop Operating Systems）．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 2
Computer Networking Technology 51A
（A＋Hardware Fundamentals） $\qquad$
Computer Networking Technology 51B
（A＋Operating System Fundamentals）
（A＋Operating System Fundamentals）M．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 2
Computer Networking Technology 52 （Networking Fundamentals）．．．．．． 3
Computer Networking Technology 62A
（Cisco Networking Academy CCNA 1\＆2）．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 4
Computer Networking Technology 62B
（Cisco Networking Academy CCNA 3－4 ）．
Computer Networking Technology 43 （Professional Communications）． .4
Total Units Required ..... 21

## Certificate of Achievement

 Cisco Network ProfessionalComputer Networking Technology 50 （Introduction to Desktop Operating Systems）．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 2
Computer Networking Technology 51A （A＋Computer Fundamentals）．．．．． 2

Computer Networking Technology 51B
（A＋Operating System Fundamentals）．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 2
Computer Networking Technology 52 （Networking Fundamentals）．．．．．． 3
Computer Networking Technology 62A
（Cisco Networking－Academy CCNA 1\＆2）．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 4
Computer Networking Technology 62B
（Cisco Networking－Academy CCNA 3\＆4 ）．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 4
Computer Networking Technology 63
（Cisco CCNP Semester 5 －Advanced Routing）．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 4
Computer Networking Technology 64
（Cisco CCNP Semester 6－Remote Access）．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 4
Computer Networking Technology 65
（Cisco CCNP Semester 7 －Multilayer Switching）．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 4
Computer Networking Technology 66
（Cisco CCNP Semester 8 －Internetworking Troubleshooting）．．．．．．．．．．．．． 4
Computer Networking Technology 43
（Professional Communications）．
Total Units Required ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 37

## Career Certificate

Computer Desktop OS Securitys
Computer Networking Technology 51A
（Comp TIA A＋Essentials Certificattion）
Computer Networking Technology 51B
（Comp TIA A＋Practical Application Certification）．．．． 2
Computer Networking Technology 69 （Network Security，Sec＋）． ..... ．．．． 3

Computer Networking Technology 74.1
（Introduction to Linux／Unix，Linux＋）． .4

And one course from the following：
Computer Networking Technology 52
（Networking Fundamentals）． 3

Computer Networking Technology 62A （Cisco Networking Academy CCNA 1－2）． .4
§ This certificate is not transcripted．This group of courses provides industry－ based professional development．Individual courses will appear on transcript． See a counselor for further information．

## Career Certificate

## Computer Forensics Examiner ${ }^{\text { }}$

Computer Information Systems 50
（Introduction to Computer \＆Information Technology）or
Computer Networking Technology 62A
（Cisco Academy CCNA 1\＆2）or
Computer Networking Technology 51A
（A＋Hardware Fundamentals）and
Computer Networking Technology 51B
（A＋Operating System Fundamentals）．
Computer Networking Technology 68 （Introduction to Computer Forensics）．．．． 3
Computer Networking Technology 70 （Computer Forensics II）．．．．．．．．．．．．．． 3
Administration of Justice 60 （Criminal Law）． ..... ．．． 3
Administration of Justice 61 （Evidence） ..... ．．． 3
Total Units． ..... 15－16
§ This certificate is not transcripted．This group of courses provides industry－ based professional development．Individual courses will appear on transcript． See a counselor for further information．

## Career Certificate <br> Computer Network Administration ${ }^{\text {§ }}$ （Microsoft）

Computer Networking Technology 50 （Introduction to Desktop Operating Systems）or Computer Information Systems 65 （Introduction to Desktop Operating Systems）．． $\qquad$ ．．．． 2
Computer Networking Technology 52 （Networking Fundamentals）．．．．．． 3
Computer Networking Technology 54 （Windows Professional）．．．．．．．．．．．．．． 3
Computer Networking Technology 55 （Windows Server）．．．．．．．．．．．．．．．．．．．．．．．．． 3
Computer Networking Technology 56
（Implementing Windows Network Infrastructure） $\qquad$ .. .3
Computer Networking Technology 57
（Implementing Windows Directory Services） ... .3

Total Units．
§ This certificate is not transcripted．This group of courses provides industry－ based professional development．Individual courses will appear on transcript． See a counselor for further information．

## Career Certificate <br> Computer Network Technician ${ }^{\text {§ }}$

Computer Networking Technology 50
（Introduction to Desktop Operating Systems）or
Computer Information Systems 65
（Introduction to Desktop Operating Systems）．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 2
Computer Networking Technology 51A （Comp TIA A＋Essentials Certification）
Computer Networking Technology 51B
（Comp TIA A＋Practical Application Certification
Computer Networking Technology 52 （Networking Fundamentals）．．．．．． 3
Computer Networking Technology 43
（Professional Communications）．． .. .4

Total Units． $\qquad$ depending on whether 51A or 51B is requiredor both
§ This certificate is not transcripted．This group of courses provides industry－ based professional development．Individual courses will appear on transcript． See a counselor for further information．

## Career Certificate <br> Emerging Technologies ${ }^{5}$

Computer Networking Technology 67
$\qquad$
Computer Networking Technology 73.1 (VoIP: Cisco and Asterisk IP Phones)
....
Computer Networking Technology 77.1
(VmWare, Microsoft 7 Xen Virtual Machines) .......................................... 4
And one course from the following:
Computer Networking Technology 73.2
(Podcasting, Video and Radio Streaming)........................................................ 3
Computer Networking Technology 76.1
(Smart Home Technology DHTI+).................................................................... 4
Total Units 14-15
§ This certificate is not transcripted. This group of courses provides industrybased professional development. Individual courses will appear on transcript. See a counselor for further information.

## Career Certificate

Network and Wireless Security ${ }^{\text {s }}$
Computer Networking Technology 52 (Networking Fundamentals)............. 3 Computer Networking Technology 62A (Cisco Academy CCNA 1\&2) .......... 4 Computer Networking Technology 67
(Wireless Networks and Security CWNA)........................................................... 2
Computer Networking Technology 68
(Introduction to Computer Forensics).........................................................................
Computer Networking Technology 69 (Network Security Sec+)....................... 3
Total Units........................................................................................................... 15
§ This certificate is not transcripted. This group of courses provides industrybased professional development. Individual courses will appear on transcript. See a counselor for further information.

## Career Certificate <br> TCP/IP Network Analysis ${ }^{\text {s }}$

Computer Networking Technology 67
(WiFi, Wireless, Hotspot Networks and Security CWNA)....................... 3
Computer Networking Technology 75.1
(WhiteHat Hacker Penetration Testing) ............................................................. 4
Computer Networking Technology 75.2
(Wireshark, TCP/IP Analysis and Network Troubleshooting)............... 4
And one course from the following:
Computer Networking Technology 73.1
(VoIP: Cisco and Asterisk IP Phones)......................................................... 4
Computer Networking Technology 74.1
(Introduction to Linux/Unix, Linux+)........................................................ 4
Computer Networking Technology 77.1
(VMWare, Microsoft 7 Xen Virtual Machines). 4

Total Units....................................................................................................15-16
§This certificate is not transcripted. This group of courses provides industry-based professional development. Individual courses will appear on transcript. See a counselor for further information.

## COMPUTER NETWORKING TECHNOLOGY (CNT)

## CNT 43 PROFESSIONAL COMMUNICATIONS

4 UNITS
This course is designed to help students develop and refine the written and oral communication skills necessary to communicate effectively in a business environment. This will be accomplished through the planning, composing, and evaluating of written communication; report writing; and oral presentations. Additional focus will be placed on developing interpersonal skills, team participation skills,
and professionalism. Students who have completed or are enrolled in Business 43, Computer Information Systems 43, Computer Science 43, English 43, or Speech 43 may not receive credit. Strongly recommended: Eligibility for English 1A. 4 hours. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

## CNT 50 INTRODUCTION TO DESKTOP OPERATING SYSTEMS

2 UNITS
By performing numerous hands-on labs, students in this class will gain an understanding of desktop operating systems using command line and GUI interfaces, such as Windows XP, 2003, 2008, Win7, UNIX/ Linux, Apple, and other emerging operating systems, including online web-based desktops and cloud computing. Students will use virtualization software VMware, MS VirtualPC, or Sun VirtualBox to install and configure operating systems and user applications on a microcomputer system. Students will also experiment with online desktops-like AjaxWindows, Schmedley, Glide, Google Docs, eyeOS. Operating systems for cell phones (Google Android Chrome O?S, Iphone) will be demonstrated. The role of hardware, application software and the operating system and how they interact with each other will be explored. Students who have completed or are enrolled in Computer Information Systems 65 may not receive credit. Strongly recommended: Computer Information Systems 50. 2 hours lecture, 1 hour laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## CNT 51A COMPTIA A+ ESSENTIALS CERTIFICATION 2 UNITS

Designed to take students from the just-a-user level to the I-can-fix-it level for most common PC hardware issues. This class covers the objectives for the CompTIA A+ Essentials exam number 200701: Hardware; Troubleshooting, Repair \& Maintenance; Operating Systems \& Software; Networking; Security; Operational Procedure In addition, students learn communication skills and professionalism required of all entry-level IT professionals. Students will have the knowledge and skills required to identify hardware, peripheral networking, system problems and employ basic troubleshooting methodology, and practice proper safety procedures. Strongly recommended: Computer Networking Technology 50. 2 hours lecture, 1 hour laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

## CNT 51B COMPTIA A+ PRACTICAL

 APPLICATION CERTIFICATION2 UNITS
This class covers the objectives for the CompTIA A+ Practical Application certification exam. This is the second of the two exams for the CompTIA A+ certification. It is an extension of the knowledge and skills identified in CompTIA A+ Essentials Certification, with more of a hands-on orientation focused on scenarios in which troubleshooting and tools must be applied to resolve problems. Students learn to install, configure, upgrade, and maintain PC workstations, the Windows OS and SOHO networks. Students utilize troubleshooting techniques and tools to effectively and efficiently resolve PC, OS, and network connectivity issues and implement security practices. Strongly recommended: Computer Networking Technology 51A. 2 hours lecture, 1 hour laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

CNT 52 NETWORKING FUNDAMENTALS 3 UNITS
This course is a foundation course that explains and describes how computer networks are designed, installed, and administrated. Introduction to communications concepts, data communications, networking, and Internetworking. Review of major network components: hardware, software, protocols (TCP/IP, IPX/SPX, NETBEUI), topologies, and cabling. Overview of LAN administration, setup, and installation. Preparation for the Network+ certification exam. Students may receive credit for either Computer Information Systems 66 or Computer Networking Technology 52, but are limited
to a total of two times in any combination. Strongly recommended: Computer Information Systems 50. 3 hours lecture, 1 hour laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit Grading Option: OP

## CNT 54 WINDOWS CLIENT—MS

 NETWORKING CERTIFICATION 3 UNITSInstallation and configuration of Windows Professional operating system. Preparation for the Microsoft Certificated System EngineeR (MCSE) exam. Students will learn to install and configure Microsoft Windows Professional on stand-alone computers and on client computers that are part of a workgroup or a domain. Creation of user and group accounts, group policies, administrating access to shared resources, configuration of hardware devices, monitoring of system resources, troubleshooting, and ensuring data integrity and security. Strongly recommended: Computer Network Technology 51 and Computer Network Technology 52. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

CNT 55 WINDOWS SERVER 2003 3 UNITS
In this class, students learn to install and configure the current Windows client workstation for a professional business network using virtualization and/or online using virtual labs. Students install applications and learn to configure laptop computers. Course content follows the Microsoft Official Academic course curriculum and is intended to prepare students to take the Microsoft client component of the Microsoft Certified IT Professional (MCITP), Microsoft Certified Technology Specialist (MCTS), or the Microsoft Certified Systems Engineer (MCSE) certification exam. Topics include creation of user and group accounts, group policies, administrating access to shared resources, configuration of hardware devices, monitoring of system resources, troubleshooting, and ensuring data integrity and security. Strongly Recommended: Computer Networking Technology 51B, and Computer Network Technology 52. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

## CNT 56 IMPLEMENTING WINDOWS

 NETWORK INFRASTRUCTURE
## 3 UNITS

This course will enable students to install, configure, manage, and support a network infrastructure that uses the Microsoft Windows Server products. The course focuses heavily on TCP/IP and related services including DHCP server, DNS server, WINS, network security protocols, Public Key Infrastructure (PKI), Internet Protocol Security (IPSec), and remote access. This course also enables a student to configure Windows as a network router, configure Internet access for a network, configure a Web server, and manage a Windows deployment using Remote Installation Service (RIS). The student will also learn to enable network connectivity between NetWare, Macintosh, and UNIX networks. Strongly recommended: Computer Network Technology 54 and Computer Network Technology 55. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP

## CNT 57 IMPLEMENTING WINDOWS

 ACTIVE DIRECTORY SERVICES
## 3 UNITS

Students will learn to install, configure, and administer Microsoft Windows Active Directory services. This course focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers. Students will use Group Policy to configure and manage the user desktop environment, to configure and manage software and implement and manage security settings. Students will install and manage Windows domains and domain controllers through Active Directory. Strongly recommended: Computer Network Technology 54 and Computer Network Technology 55. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP

CNT 62A CISCO NETWORKING ACADEMY CCNA 1 \& 24 UNITS
This course covers the first 2 parts in the Cisco Certified Network Associate (CCNA) curriculum, and the objectives of the CCNA 640-821 INTRO certification exam. This course will cover the fundamental of networking, including the OSI model and industry standards, concepts, network topologies, cabling, network hardware, basic network design, LANs, and network configuration and troubleshooting. It includes router and routing concepts and terminology including RIP, EIGRP, and IGRP routing protocols, distance vector and link state routing, routing loop issues, routing theory, TCP/IP basics, IP addressing, subnetting, router IOS and configuration, switching concepts, CDP and SCMA-CD. Students will get hands-on experience configuring Cisco routers and switches. Students should have basic computer skills and knowledge of Internet use. Strongly recommended: Computer Information Systems 50.3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit Grading Option: OP

## CNT 62B CISCO NETWORKING ACADEMY CCNA 3-4 4 UNITS

This course covers the third and fourth parts of the Cisco Certified Network Associate (CCNA) curriculum, and the objectives of the CCNA 640-811 ICND exam. It covers Internetwork topology and design, configuring LAN switches, STP, VLANs and trunking, TCP/IP suite, VLSM / CIDR IP addressing and subnetting, advanced routing concepts and configuration for RIP, EIGRP, IGRP, and static routes. Also includes WANs using Frame Relay, ISDN, dial-on-demand routing, PPP, PAP/CHAP authentication, and network address translation. Network security, best practices, router-switch security, passwords, and remote access concepts. This class includes hands-on experience using Cisco routers and switches. Prerequisite: Computer Networking Technology 62A (completed with a grade of "C" or higher) or completion of Cisco Networking Academy $1 \& 2$ at a Cisco Academy. 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP
CNT 63 CISCO CCNP SEMESTER 5 - ADVANCED ROUTING 4 UNITS
This course is the first course in the Cisco Certified Network Professional (CCNP) curriculum. This course will cover the configuration of Cisco routers for operating in large or growing multiprotocol internetworks. This course includes lectures and laboratory exercises that focus primarily on laboratorytechnologies and the Cisco IOS software features that are most useful in building large or growing internetworks. These features include laboratory routing protocols, such as OSPF, EIGRP, and BGP, queuing, VLSM, route distribution, route summarization, and NAT. Recommend students take classes in order and only one CCNP course at a time. Prerequisite: Computer NetworkingTechnology 62B(completed with a grade of "C" or higher) or have a CCNA certificate. 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

CNT 64 CISCO CCNP SEMESTER 6 - REMOTE ACCESS 4 UNITS This is one of the four courses in the Certified Cisco Network Professional (CCNP) curriculum. This course is designed to provide students a combination of both lectures and laboratory experience in current and emerging networking technology. This will prepare them for the Cisco Certified Networking Professional (CCNP) exam: Building Cisco Remote Access Networks. Instruction includes ISDN, DDR, ODR, dialup networking, Cisco 700 series routers, Frame Relay, and AAA Recommend students take classes in order and only one CCNP course at a time Prerequisite: Computer Networking Technology 62A and Computer Networking Technology 62B (completed with a grade of "C" or higher) or have a CCNA certificate. 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

## CNT 65 CISCO CCNP SEMESTER 7 MULTILAYER SWITCHING

4 UNITS
This is one of the four courses in the Certified Cisco Network Professional (CCNP) curriculum. This course is designed to provide students a combination of both lectures and laboratory experience in current and emergent networking technology. This will prepare them for the Cisco Certified Networking Professional (CCNP) exam: Building Cisco Multilayer Switching Networks. Instruction includes both routing and switching concepts, covering both Layer 2 and Layer 3 technologies. This course includes topics in LAN design, media types, VLANs, VLAN Trunking Protocol, ISL, 802.1Q, Spanning Tree, InterVLAN routing, Multilayer Switching, Flow Masks, HSRP, Multicasting, IGMP, and CGMP. Recommend students take classes in order and only one CCNP course at a time Prerequisite: Computer Networking Technology 62B (completed with a grade of " $C$ " or higher) or have a CCNA certificate. 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

## CNT 66 CISCO CCNP SEMESTER 8 - INTERNET WORKING TROUBLESHOOTING

4 UNITS
This is one of the four courses in the Certified Cisco Network Professional (CCNP) curriculum. This course is designed to provide students a combination of both lectures and laboratory experience in current and emergent networking technology. This will prepare them for the Cisco Certified Networking Professional (CCNP) exam: Internetworking Troubleshooting and Support Exam. This advanced course provides networking professionals with the troubleshooting processes on Cisco Routers and Catalyst Switches. Students are taught how to baseline and troubleshoot an environment using Cisco routers and switches for multi-protocol client hosts and servers connected with: Ethernet, Fast Ethernet, Token Ring, Serial, Frame Relay, and ISDN BRI. Recommend students take courses in order and only one CCNP course at a time Prerequisite: Computer Network Technology 62B (completed with a grade of "C" or higher), or have a CCNA certificate and have completed Computer Network Technology 63, 64 and 65 or industry equivalent experience. 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

## CNT 67 WIFI, WIRELESS, HOTSPOT NETWORKS

 AND SECURITY CWNA3 UNITS
This course will prepare students to plan, purchase, and install a small to medium-sized wireless or WIFI HotSpot network and secure it, and meets the needs of small businesses, SOHO (Small Office, Home Office) workers, telecommuters, and home wireless networks. Subjects covered include: wireless network access, modems, routers, firewalls, war-driving, security, compatibility, site survey and network planning, basic network administration, basic network troubleshooting, and objectives of the CWNA wireless networking exam. Strongly recommended: Computer Information Systems 50, Computer Networking Technology 55, or similar hands-on experience. 2.5 hours lecture; 1.5 hours laboratory.
Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP
CNT 68 INTRODUCTION TO COMPUTER FORENSICS 3 UNITS
A survey course in the detection, prevention and investigation of incidents involving computers and digital information, including cyber attacks and the use of computers to investigate crimes. The program will include introduction to computer forensics, incident response, methods of investigation, tracking persons and data, the secure analysis of hard drives and storage mediums, and IT security utilizing court-approved forensic software and tools. Strongly recommended: Computer Information Systems 50 or similar hands-on experience. 3 hours lecture. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP

CNT 69 NETWORK SECURITY SEC+
3 UNITS
Following the Sec+ certification objectives, an introduction to the concepts and practices of secure network design and management using desktop and network operating systems, router and switch operating systems, hardware and software Firewall and VPN technology for wired and wireless systems. The program will include authentication methods and devices, protocol analysis and IP network troubleshooting, strategies for identifying and countering vulnerabilities, network medias and topologies in a secure network, intrusion detection and forensic incident response. Strongly recommended: Computer Networking Technology 62B, CCNA certification or equivalent. 2.5 hours lecture; 1.5 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

## CNT 70 COMPUTER FORENSICS II <br> 3 UNITS

A practical course in the detection and investigation of incidents involving computers an digital information. Case oriented, following the objectives for the CFE Computer Forensics Examiner certification exam, the class includes understanding and practice in basic computer forensics, methods of investigation, analysis of hard drives, storage mediums, and network logs, and investigation reporting utilizing court-approved forensic software and tools. Strongly recommended: Computer Information Systems 50 or similar hands-on experience. (May be taken 2 times). 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

## CNT 72 CCNA BOOTCAMP CERTIFICATION

 PREPARATION3 UNITS
This course covers preparation for the CCNA - Cisco Certified Networking Associate exam. All Cisco certification exam objectives are covered conceptually, practically and specifically as they relate to the exam. Effective troubleshooting and Cisco recommended methods and nomenclature are reviewed and practiced. Topics include: basic characteristics of ethernet networks, LANs and WANs, Cisco router and switch configuration and IOS, RIP, OSPF, IGRP and EIGRP routing protocols, PPP, ISDN and Frame Relay concepts and configuration, IP network addressing, Switching, VLANS, VLSM, CIDR and network troubleshooting using Cisco methods and router and switch commands, and certification test methods, practice and preparation. Strongly Recommended: CNT62A, CNT62B (completed with a grade of "C" or higher) or the equivalent industry experience. 3 hours lecture, 1 hour laboratory Transfer: CSU Degree Applicable, Credit

Grading Option: OP

## CNT 72.10 [7210] CCNP BOOTCAMP CERTIFICATION PREP 4 UNITS

This accelerated bootcamp course covers preparation for the CCNP-Cisco Certified Networking Professional exams. All Cisco certification exam objectives are covered conceptually, practically, and specifically as they relate to the exams. Effective troubleshooting and Cisco-recommended methods and nomenclature are reviewed and practiced. Topics include: EIGRP, OSPF, IS-IS, and BGP Optimizing routing. IP multicast, IPv6, VLANs, Spanning Tree, InterVLAN routing, Layer 3 redundancy, Wireless LANs, VoIP in-campus networks, Campus network security, Frame-mode MPLS, IPsec, Cisco device hardening, Cisco IOS® threat defenses, Cisco VoIP, QoS and AutoQoS, Wireless scalability. This course can be used to prepare for one or more of the following CCNP exams: 642-892 Composite BSCI BCMSN, 642901 BSCI, 642-812 BCMSN, 642-825 ISCW, 642-845 ONT. Strongly recommended: Computer Networking Technology 62B, current CCNA certification or the equivalent industry experience. 3 hours lecture,
3 hours laboratory. Transfer: CSU (May be taken two times)
Degree Applicable, Credit
Grading Option: OP
CNT 73.1 [7301] VOIP: CISCO AND ASTERISK IP PHONES 4 UNITS
VoIP (Voice over Internet Protocol) offers a cost-effective alternative to plain old telephone service. What is it, how does it work and
what does it mean? This class is for all business, SOHO and computer users interested in using this technology, and will provide a guide for selecting, setting up and using IP phone services. It will serve as a practical hands-on guide to the purchase and setup of hardware and software for Internet phones and the broadband Internet services required to support them, providing basic need-to-know information about getting the most out of VoIP services. Strongly recommended: Computer Information Systems 50. 3 hours lecture; 3 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

## CNT 73.2 PODCASTING, VIDEO AND

 [7302] RADIO STREAMING 3 UNITSPodcasting and Internet streaming of Video are here now. This course covers the basics of understanding and manipulating the technology behind them. Subjects include TCP-IP basics, Multicasting, Audio /video formats, Codecs, digital sampling and bit resolution, digital storage media, audio and video capture basics, transcoding, compression, preprocessing, recording applications and equipment, streaming applications, web pages and HTML for streaming, XML and RSS basics, assembling a streaming system, managing media files. Strongly recommended: Computer Information Systems 50. 2.5 hours lecture; 1.5 hours laboratory.Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP

## CNT 74.1 INTRODUCTION TO

[7401] LINUX/UNIX, LINUX+ 4 UNITS
This course provides hands-on training covering basic installation, management, configuration, security, documentation and hardware topics for the Linux/UNIX operating system on workstations in a LAN environment. The objectives for basic certifications such as RHCT, CompTIA Linux + are covered. Topics include desktop security objectives and major types of security vulnerabilities, physical security, file protection, basic system and network configuration, account security, logging, backups, Linux/UNIX desktop security features and useful utilities, detecting and preventing DOS attacks, hacking, authentication and data recovery. Students may enroll in CS 41 and/or CNT 74.01 (7401) for a total of two times for credit. Strongly recommended Computer Information Systems 50. 3 hours lecture; 3 hours lab. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP
CNT 75.1 WHITEHAT HACKER
[7501] PENETRATION TESTING 4 UNITS
WhiteHat and Pen testing training covers the concepts, use and appropriate application of Penetration Testing software and utilities in Ethernet networks. Students will explore the ethical use of security tools and countermeasures. Students are required to sign the "White Hat Oath" agreement of Ethical and Professional Conduct. The course will include: Hacking methods, tools, their use and detection; penetration testing and countermeasures; exploits, vulnerability assessment in computers and networks, hands-on practice in a sandbox environment. Tools used include Wireshark, Whitehat/ Pentest tools for Windows, OSX, Linux. Strongly Recommended: One of the following courses: CNT 67, CNT 69, CNT 62A, CNT 57, C NT 55 (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP

## CNT 75.2 WIRESHARK, TCP/IP ANALYSIS AND

## [7502] NETWORK TROUBLESHOOTING 4 UNITS

Course is geared to teach solid network management skills using the WiresharkTM network analyzer. The class provides a logical troubleshooting approach to capturing and analyzing data frames. Armed with this knowledge, students can effectively troubleshoot, maintain, optimize and monitor network traffic and keep your network operating at its peak performance. Strongly recommended: Computer

Information Systems 50.3 hours lecture; 3 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP
CNT 76.1 [7601] SMART HOME TECHNOLOGY DHTI+ 4 UNITS
This course provides hand-on training in digital home networking and systems integration and will cover the objectives of CompTIA's DHTI+ certification exam. Specific topics covered include: Introduction to HTI; Home Network Design and Configuration; Home Network Central Components and Low-Voltage Wiring; High-Voltage Wiring; Video and Audio Fundamentals; Audio/Video Installation and Setup; Telecommunications and Networking Fundamentals and Installation; Home Lighting Control; Heating, Ventilation and AirConditioning (HVAC) Management; Water System Management; Miscellaneous Automated Control Systems, TCP/IP, Router/Computer network configuration, Wiring standards, testing and certification, Troubleshooting. Strongly recommended Computer Information Systems 50. 3 hours lecture; 3 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP
CNT 77.1 VMWARE, MICROSOFT AND XEN [7701] VIRTUAL MACHINES 4 UNITS
VMWare, Microsoft Virtual Server, Virtual PC and XEN are virtualization software's, more common every day. Using virtual machines gives huge savings in time, money, energy and resources for individuals and companies. Every power user and sysadmin needs to understand virtualization and the implications for the future of desktops and servers. This class covers Virtual Machine basics, concepts, and use. Strongly recommender: Computer Information Systems 50. 3 hours lecture; 3 hours laboratory. Transfer: CSU (Maybe taken 2 times)
Degree Applicable, Credit Grading Option: OP

## CNT 95 DIRECTED WORK EXPERIENCE PRACTICUM 1-3 UNITS

Earn college credit for learning while working. Occupational Work Experience is college-supervised employment of students that extends classroom learning to the workplace and relates to the students' educational occupational goals. Students must have a job (paid, volunteer, or internship) in a licensed business that directly relates to their goals. Through a set of individualized learning objectives established by the student, supervisor, and instructor, each student will work with and learn from professionals in their field of study. These experiences will enable students to improve job skills, analyze career opportunities and requirements, and apply knowledge and skills gained in the traditional classroom in a work-site situation. Corequisite: Computer Networking Technology 96. 5-15 hours or more of paid employment per week or 4-12 hours of volunteer work per week. May be repeated to a total of 16 units, including CIS/CS/CNT 96. Transfer: CSU (May be taken 4 times)

Degree Applicable, Credit
Grading Option: OP
CNT 96 DIRECTED WORK EXPERIENCE SEMINAR 1 UNIT
Earn college credit for learning while working. Focal point for the coordination of the student's program of study with collegesupervised part-time or full-time employment in the student's major field. Case studies, job-related problems, student cases and presentations, and material related to employment, organizations and management are discussed; emphasis on building strong working relationships with supervisors, subordinates, and co-workers. Course content will serve as a guideline as you go through the employment cycle of setting goals, researching careers, applying for and getting a job, and dealing with workplace issues. Corequisite: Computer Networking Technology 95. May be repeated to a total of 16 units, including CIS/CNT/CIS 95. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## CNT 99 SPECIAL STUDIES

.3-3 UNITS
Special studies in a specialized technical-vocational major. Typically offered for a particular occupation or skill. Courses may be offered under any course title contained in the Catalog, using the number 99. 0.3-9 hours. Refer to the Schedule of Classes under Computer Networking Technology 99, Special Studies, for a list of the current offerings. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## REQUEST FOR COURSE SUBSTITUTION-SPECIAL STUDIES (CNT 99)

Students who wish to fulfill a degree or certificate program requirement with a Special Studies (CNT 99) course should complete a Request for Course Substitution or Waiver form. This form (available from the Division Offices and Counseling) should be completed by students in consultation with academic faculty in order for Special Studies to be accepted in fulfillment of the degree and certificate requirements

## COMPUTER SCIENCE

## degree certificate

## About the Program

Las Positas College offers Degrees and Certificate programs in Computer Science that prepare students for direct job entry and/or preparation for transfer to a four-year university.

These programs cover a wide range of computer related professions that include programming, systems analysis, data processing, and computer science. Students will learn to direct computer operations by writing detailed instructions in computer languages to solve a variety of problems in business, government, and science. These include information acquisition, processing storage, and transmission, using computers and computer peripherals.

Principal areas of study within computer science include artificial intelligence; computer systems and networks; database systems; human factors; numerical analysis; programming languages; software engineering and theory of computing.

## Degrees/Certificates

- Degrees:
- AS - Computer Science
- AS - Computer Programming
- AS - Computer Programming for the Web
- Certificates of Achievement:
- Computer Programming
- Computer Programming for the Web


## Career Opportunities

Include but are not limited to: Programmer, Programmer/Analyst, Business Analyst, Systems Analyst, Computer Scientist, Information Technologist, Information Systems Professional, Information Technology Professional, Programming Professional, Software Developer, or Software Engineer.

## Transferability

This program fulfills typical lower-division requirements at four-year transfer institutions. Some variation in requirements may exist at a particular four-year college or university; therefore, it is essential that the student also refer to the catalog of the prospective transfer institution and consult a counselor.

## AS - Computer Science

## Freshman Year

Computer Science 1 (Computing Fundamentals I) ...................................... 4
Computer Science 2 (Computing Fundamentals II).................................... 4
Computer Science 41 (Introduction to Linux/UNIX, Linux+)................... 4
Mathematics 1 (Analytical Geometry and Calculus I)................................ 5
Mathematics 2 (Analytical Geometry and Calculus II).............................. 5
General Education Courses

## Sophomore Year

Computer Science 20 (Advanced Programming Methods with Data Structures Using C++). .4

Computer Science 21 (Computer Organization and Assembly Language Programming).. .... 4
Mathematics 7 (Elementary Linear Algebra with Computer Applications) or Mathematics 41 (Statistics for Business Majors or Mathematics 42A (Introduction to Probability and Statistics) or Mathematics 44 (Statistics and Probability). 3-5
Mathematics 10 (Discrete Mathematics)... .....  4
General Education Courses

Total units required.60

SProgram-based General Education 3 unit requirement: Chemistry 7 A or Chemistry 31 or Physics 8 A or Physics 2A or Mathematics 42 or Mathematics 44.

## AS - Computer Programming

Freshman Year
Computer Science 1 (Computing Fundamentals I) ....................................... 4
English 1A (Critical Reading and Composition)............................................... 3
Computer Information Systems 60
(Systems Analysis and Design)................................................................... 3
Select 1 course from the following:
Computer Science 2 (Computing Fundamentals II)
Computer Science 21 (Assembly Language)
Computer Science 30 (C++ Programming)
Computer Science 31 (Java Programming)
Computer Science 32 (Visual Basic Programming)......................................4-5
Computer Science 43 (Professional Communications).............................. 4
General Education Courses§
Sophomore Year
Computer Science 45 (Database Programming)............................................. 3
Select 1 course from the following:
Computer Science 20 (Data Structures)
Computer Science 33 (Advanced C++ Programming)
Computer Science 34 (Advanced Java Programming)
Computer Science 35 (Advanced Visual Basic Programming)
Computer Science 36 (Windows and MFC Programming) $\qquad$
Select 1 course from the following:
Computer Science 2 (Computing Fundamentals II)
Computer Science 21 (Assembly Language)
Computer Science 30 (C++ Programming)
Computer Science 31 (Java Programming)
Computer Science 32 (Visual Basic Programming).
Computer Science 47 (Capstone Project).................................................... 3
General Education Courses§
Total units required
.60
${ }^{5}$ Program-based General Education 3 unit requirement: Chemistry 7 A or
Chemistry 31 or Physics 8A or Physics 2A or Mathematics 42 or Mathematics 44.

## AS - Computer Programming for the Web

Freshman Year
Computer Science 1 (Computing Fundamentals I)...................................... 4
Computer Science 43 (Professional Communications) 4
English 1A (Critical Reading and Composition) ..... 3
Computer Science 31 (Java Programming) ..... 4
Computer Science 37 (Web Programming) .....  4
Visual Communications 53 (Photoshop I for Design). .....  2
General Education Courses
Sophomore Year
Computer Information Systems 60 (Systems Analysis and Design)....... .....  3
Select 1 course from the following:
Computer Science 38 (Perl and CGI)
Computer Science 39 (Java Servlets and JSP)
Computer Science 40 (VBScript, ASP, ActiveX). 2
Computer Science 44 (Advanced Web Programming) .....  4
Computer Science 45 (Database Programming). .....  4
Computer Science 47 (Capstone Project). .....  3
General Education Courses ${ }^{\text {§ }}$
Total units required 60§Program-based General Education 3 unit requirement: Chemistry 1 A orChemistry 31 or Physics 8 A or Physics 2A or Mathematics 42 or Mathematics 44.
Certificate of Achievement Computer Programming
Programming Fundamentals:
Computer Science 1 (Computing Fundamentals I). ..... 4
Intermediate Courses in two Programming Languages-Select 2:Computer Science 21 (Assembly Language)
Computer Science 30 (C++ Programming)Computer Science 31 (Java Programming)Computer Science 32 (Visual Basic Programming) 8
Advanced Course in any Programming Language-Select 1:Computer Science 20 (Data Structures)Computer Science 33 (Advanced C++ Programming)Computer Science 34 (Advanced Java Programming)Computer Science 35 (Advanced Visual Basic Programming)Computer Science 36 (Windows and MFC Programming).. .4
Professional Competence:
Computer Information Systems 60 (Systems Analysis and Design).... .....  3
Computer Science 43 (Professional Communications). ..... 4
Computer Science 45 (Database Programming) .....  4
Computer Science 47 (Capstone Project).. .....  .3
Total Units. ..... 30
Certificate of Achievement Computer Programming for the Web
Programming Fundamentals:
Computer Science 1 (Computing Fundamentals I). .....  4
Computer Science 31 (Java Programming) .....  4
Scripting Languages/Imaging (Select 1):
Computer Science 38 (Perl and CGI)
Computer Science 39 (Java Servlets and JSP)
Computer Science 40 (VBScript, ASP, Active X) .....  2
Professional Competence:
Visual Communications 53 (Photoshop I for Design) .....  2
Computer Science 37 (Web Programming). .....  4
Computer Science 43 (Professional Communications) .....  4
Computer Science 44 (Advanced Web Programming) .....  .4
Computer Information Systems 60 (Systems Analysis and Design)... .....  3
Computer Science 45 (Database Programming). ..... $\ldots . .4$
Computer Science 47 (Capstone Project). .....  3
Total Units .....  34

## COMPUTER SCIENCE (CS)

## CS 1 <br> COMPUTING FUNDAMENTALS I

4 UNITS
Introduction to programming and problem-solving using C++. Problem solving techniques and algorithms; program design, development, style, testing and debugging. C++ syntax covered includes: variables; data types; operators and expressions; control structures; library and user-defined functions; basic input/output; arrays; user-defined data structures. Strongly Recommended: Mathematics 107 (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. AA/AS GE. Transfer: CSU, UC
Degree Applicable, Credit Grading Option: OP

## CS 2 COMPUTING FUNDAMENTALS II 4 UNITS

Object-oriented programming methods applied to intermediatelevel problems using C++. Pointers and dynamic allocation; classes; encapsulation; inheritance and polymorphism; object and function overloading; recursive algorithms; introduction to searching and sorting; introduction to abstract data types. Strongly Recommended: Computer Science I. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit Grading Option: OP

## CS 7 INTRODUCTION TO COMPUTER PROGRAMMING CONCEPTS

3 UNITS
An introductory course in computer programming for non-science majors and for students requiring additional preparation before taking Computer Science 1. Hardware, system software basics, the history of computing, computer ethics, basic computer operations, number systems, design of algorithms, pseudocoding, flowcharting, and programming constructs such as variables, expressions, input/ output, decision-making, loops. 2.5 hours lecture, 1.5 hours laboratory.
Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP
CS 16 MOBILE APPLICATION DEVELOPMENT: IPHONE 3 UNITS
Object-oriented programming in Objective $C$ for the iPhone and related platforms (e.g., iPad, iPod Touch) at a beginning to intermediate level. Introduction to the iOS mobile platform. Introduction to Objective C syntax and concepts and the Cocoa Touch application programming interface (API), including: classes, objects, inheritance, protocols, selectors, strings, arrays, dictionaries, sets and memory management; creating user interfaces; using graphics, audio and video. Recommended for students with substantial prior programming experience in C, C++ or Java. Strongly recommended: Computer Science 1. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU, UC Degree Applicable, Credit

Grading Option: OP

CS 20 ADVANCED PROGRAMMING METHODS WITH DATA STRUCTURES USING C++ 4 UNITS
Design and implementation of larger programs in C++ using software engineering principles. Emphasis on definition and use of data structures. Includes specification of abstract data types, recursion, dynamic memory allocation, stacks, linked lists, queues, binary trees, random access files, and use of hash codes. Prerequisite: Computer Science 2 (completed with a grade of " $C$ " or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

[^2]
## CS 30 <br> C++ PROGRAMMING <br> 4 UNITS

Applications programming in $\mathrm{C}_{++}$for the student already familiar with the concepts of programming. The following concepts are introduced: Object-oriented programming, encapsulation, inheritance and polymorphism; introduction to data abstraction and structures; pointer; file I/O. Prerequisite: Computer Science 1 (completed with a grade of " C " or higher). 3 hours lecture, 3 hours laboratory. Note: This course will not be offered at this time. Students are advised to take CS 1 instead. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

## CS 31 <br> JAVA PROGRAMMING <br> 4 UNITS

Applications programming in Java for students already familiar with the concepts of programming. Topics will include in Applets and Swing, multimedia, presenting data files over the web, elementary data structures (queues, linked list, stacks) and vectors, binary searching, sorting, JDBC (Java Data Base Connectivity), Remote Method Invocation (RMI), and Java Beans. Prerequisites: Computer Science 1 (completed with a grade of " $C$ " or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit Grading Option: OP

CS 32 VISUAL BASIC PROGRAMMING 4 UNITS
Applications programming in Visual Basic to create Windows oriented applications for student already familiar with the concepts of programming. Emphasis on algorithms, I/O, multimedia capabilities, data file I/O, loops, decision-making, string processing, functions, control objects (such as sliders, combination boxes, radio buttons), ActiveX controls, Object Linking and Embedding (OLE), use of the grammar and syntax for a foundation for VBScript and Visual Basic for Applications. Prerequisite: Computer Science 1 (completed with a grade of " C " or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC Degree Applicable, Credit

Grading Option: OP

## CS 33 ADVANCED C++ PROGRAMMING 4 UNITS

This is an advanced course in C++ programming. Advanced topics will be covered which will build on the skills acquired in earlier courses. Topics include advanced OOP, class libraries, STL, templates, Input and Output, graphics, files, multimedia, database, prototyping, interface design. Prerequisite: Computer Science 30 or Computer Science 2 (completed with a grade of " C " or higher). 3 hours lecture, 3 hours laboratory. Note: This course will not be offered at this time. Students are advised to take CS 2 instead. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP
CS 34 ADVANCED JAVA PROGRAMMING
4 UNITS
This is an advanced course in Java programming. Contents include advanced topics that will build on the skills acquired in earlier courses. It will cover advanced topics in Java: design and implementation of graphical user interfaces, exception handling, multithreading, database connectivity (JDBC), Servlets, networking, data structures, utility packages, collections, and JavaBeans. Prerequisite: Computer Science 31 (completed with a grade of " $C$ " or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP
CS 35 ADVANCED VISUAL BASIC PROGRAMMING 4 UNITS
This is an advanced course in Visual Basic programming. The contents will build on the skills acquired in earlier courses. Topics include advanced OOP, class libraries, Input and Output, graphics, files, multimedia, database, prototyping, interface design. Prerequisite: Computer Science 32 (completed with a grade of " $C$ " or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

CS 36 WINDOWS AND MFC PROGRAMMING 4 UNITS
This is an advanced course in Windows programming using C++.
Teaches Applied Windows Programming in C++. This course presents a comprehensive introduction to the Windows C++ programming and its role in the Internet and database programming. A variety of OOP topics covered will include building basic Windows applications including menus, dialog boxes, main window, buttons, MFC Wizards, ODBC, OLE-DB/ADO, DHTML, and ActiveX. Prerequisite: Computer Science 30 or Computer Science 2 (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## CS 37 WEB PROGRAMMING 4 UNITS

The objective of this course is to develop skills and understanding in designing Web Pages using "static" and "dynamic" HTML tags for page layouts, hypertext links, site navigation, multimedia presentations, and audiovisual special effects. To enhanced web site appearance and functionality, JavaScript will also be introduced. Participants will learn to use various web programming tools such as HTML editors, graphic image editors, graphic animators, and image map makers. Participants will also learn proper web design principles and develop web pages based upon current mainstream browser capabilities and limitations. Prerequisite: Computer Science 1 (completed with a grade of " $C$ " or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit Grading Option: OP

## CS 38 PERL AND CGI PROGRAMMING <br> 2 UNITS

Introductory course in Programming Evaluation and Reporting
Language (PERL) and its use in elementary Common Gateway Interface on a UNIX server. Topics include basic PERL grammar and syntax, creating CGI scripts and HTML calls. Prerequisite: Computer Science 1(completed with a grade of "C" or higher). Strongly recommended: Computer Science 41, Computer Science 37. 1.5 hours lecture, 1.5 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit Grading Option: OP

## CS 39 JAVA SERVLETS AND JSP <br> 2 UNITS

Introduction to basic Java Servlet capabilities as an alternative to Common Gateway Interface (CGI) to create interactive web pages including secure access to the web site, database interactivity, generate dynamic web pages and maintain client session data (i.e., cookies). Prerequisites: Computer Science 31 and Computer Science 37 (both completed with a grade of "C" or higher). 1.5 hours lecture, 1.5 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
CS 40 VBSCRIPT, ASP, ACTIVE X
2 UNITS
Introductory coding of ActiveX Controls, VBScript and ASP capabilities in web applications designed to run primarily under Microsoft Internet Explorer. Demonstration and use of user interface ActiveX objects, the VBScript that allows these controls to operate and the use of ASP to access database data over the web. Designed as an introductory course for Microsoft Internet Explorer web page authors with a moderate background in programming to develop user controlled event driven applications with the potential capability to access data over the web. Prerequisite: Computer Science 32 (completed with a grade of " C " or higher). 1.5 hours lecture, 1.5 hours laboratory. Transfer: CSU
Degree Applicable, Credit Grading Option: OP

## CS 41 INTRO TO LINUX/UNIX, LINUX+ <br> 4 UNITS

This course provides hands-on training covering basic installation, management, configuration, security, documentation and hardware topics for the Linux/UNIX operating system on workstations in a LAN environment. The objectives for basic technician certifications such as RHCT, CompTIA Linux+ are covered. Topics include desktop security objectives and major types of security vulnerabilities, physical security, file protection, basic system and network configuration, account
security, logging, backups, Linux/UNIX desktop security features and useful utilities, detecting and preventing DOS attacks, hacking, authentication and data recovery. Students may enroll in Computer Science 41 and/or Computer Networking Technology 74.1 (7401) for a total of two times for credit. Strongly recommended Computer Information Systems 50. 3 hours lecture; 3 hours laboratory. Transfer: CSU (May be taken two times)
Degree Applicable, Credit
Grading Option: OP

## CS 43 PROFESSIONAL COMMUNICATIONS 4 UNITS

This course is designed to help students develop and refine the written and oral communication skills necessary to communicate effectively in a business environment. This will be accomplished through the planning, composing, and evaluating of written communication; report writing; and oral presentations. Additional focus will be placed on developing interpersonal skills, team participation skills, and professionalism. Students who have completed or are enrolled in Business 43, Computer Information Systems 43, Computer Networking Technology 43, English 43 , or Speech 43 may not receive credit. Strongly recommended: Eligibility for English 1A. 4 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## CS 44 ADVANCED WEB PROGRAMMING 4 UNITS

The objective of this course is to develop skills and understanding in designing eCommerce websites. This is a programming course that goes beyond mere "formatting" of web pages found with HyperText Markup Language (HTML). This course extends web page "functionality" with interactivity, multimedia, security, and database capability using prior knowledge of a scripting language (HTML, JavaScript, etc.). The participant will learn about database sorting and filtering capabilities of eXtensible Markup language (XML) that identifies data fields (e.g., <automfg> to refer to auto manufacturers). The participant will also learn eXtensible Stylesheet Language (XSL) - which specifies the presentation of a class of XML documents by describing how an instance of the class is transformed into an XML document that uses the formatting vocabulary. SXL is based on and extends the Document Style Semantics and Specification Language (DSSSL) and the Cascading Style Sheet, level 1 (CSS1) standards. Additional topics include good design principles, examples of scripts (JavaScript, ASP, ActiveX, VBScript, Servlets, JSP, Perl or CGI), discussion of security (SET, SSL, etc.), and examples of "good, bad, ugly" eCommerce websites. Prerequisite: Computer Science 37 (completed with a grade of " $C$ " of higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## CS 45 DATABASE PROGRAMMING 4 UNITS

This is a programming course that goes beyond mere "desktop" database management. Participants explore dynamic applications that interact with a database using client-side scripts, server-side scripts, and compiled server programs. Learn database concepts, relational database principles, and Structured Query Language (SQL). Prerequisite: Computer Science 2 or Computer Science 30 or Computer Science 31 or Computer Science 32 (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU Degree Applicable, Credit Grading Option: OP

## CS 46 GAME PROGRAMMING: 2D AND 3D 3 UNITS

Want to Play? You have played plenty of games. Now it is time to create your own! Design, develop and test small 2D and 3D computer games using game development software tools such as Scratch, Alice, or similar programming development programs. This first programming course will provide the student with an understanding of the principles of game design, genre-specific design issues, storytelling, image manipulation, and development teams. Programming experience is not required to get started. Although this course has a programming focus, other topics briefly covered will include the history of computer/video game technology, game genres and design principles, and the social impact of
games. Students may enroll in Computer Information Systems 46 and/ or CS 46 for a total of 2 times. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU (May be taken two times)
Degree Applicable, Credit
Grading Option: OP

## CS 47 CAPSTONE PROJECT 3 UNITS

This is the last course in the Computer Programming (CP) degree or certificate sequence. Students will work in teams and write a clientdriven work-like project requiring planning, writing, execution and presentation. The project will require the development of a large application selected by each team. According to client specifications, each team will define their project and break it down into parts. Each member of the team will write one of the parts. The team will prepare a written and oral report to present their project. This course will require the use of all of the programming and systems analysis skills developed in previous courses and will serve as a means of demonstration of mastery of program competencies. Prerequisites: Computer Information Systems 60 and Computer Science 43 and either Computer Science 20 or Computer Science 33 or Computer Science 34 or Computer Science 35 or Computer Science 36 or Computer Science 44 (completed with a grade of " $C$ " or higher). Strongly recommended: Computer Science 45.1 hour lecture, 6 hours laboratory. Transfer: CSU
Degree Applicable, Credit Grading Option: OP

## CS 48 INTRODUCTION TO GAME

 PROGRAMMING CONCEPTS 3 UNITSWant to Play? You have played plenty of games. Now it is time to create your own! You are interested in programming games, but you don't know where to begin. This course covers the basics of game programming with an emphasis on hands-on development of games using a Rapid Application Development prototyping tool such as Dark Basic or BlitzPlus. These tools, based on the Basic language, feature powerful graphics engines, and make it possible to demonstrate high-level subjects using a minimum amount of code. This first programming course provides experience and skills writing every element of your first video game-from graphics and animation to sound and music. Programming experience is not required to get started. Although this course has a programming focus, other topics briefly covered will include the history of computer/video game technology, game genres and design principles, and the social impact of games. Students may enroll in CS 48 and/or CIS 48 for a total of two times. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU, UC Degree Applicable, Credit

Grading Option: OP

## CS 95 DIRECTED WORK EXPERIENCE PRACTICUM 1-3 UNITS

Earn college credit for learning while working. Occupational Work Experience is college-supervised employment of students that extends classroom learning to the workplace and relates to the students' educational occupational goals. Students must have a job (paid, volunteer, or internship) in a licensed business that directly relates to their goals. Through a set of individualized learning objectives established by the student, supervisor, and instructor, each student will work with and learn from professionals in their field of study. These experiences will enable students to improve job skills, analyze career opportunities and requirements, and apply knowledge and skills gained in the traditional classroom in a work-site situation. Corequisite: Computer Science 96. 5-15 hours or more of paid employment per week or 4-12 hours of volunteer work per week.

May be repeated to a total of 16 units, including CIS/CS/CNT 96. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## CS 96 DIRECTED WORK EXPERIENCE SEMINAR 1 UNIT

Earn college credit for learning while working. Focal point for the coordination of the student's program of study with collegesupervised part-time or full-time employment in the student's major field. Case studies, job-related problems, student cases and presentations, and material related to employment, organizations and management are discussed; emphasis on building strong working relationships with supervisors, subordinates, and co-workers. Course content will serve as a guideline as you go through the employment cycle of setting goals, researching careers, applying for and getting a job, and dealing with workplace issues. Corequisite: Computer Science 95. May be repeated to a total of 16 units, including CIS/CS/CNT 96. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

# CONTEMPORARY STUDIES 

CONTEMPORARY STUDIES 49
.5-4 UNITS
Content developed around selected areas of contemporary issues and thought. May be offered through any non technical-vocational course title contained in the Catalog by using the number 49. The same course content may not be offered more than 2 semesters under this course number. 1-6 hours. Transfer: CSU; UC credit may be granted only after review of course outline by specific UC campus after transfer
Degree Applicable, Credit
Grading Option: OP

## CONTINUING EDUCATION STUDIES

About the Program<br>Continuing education courses include both full-term and short-term courses in a wide variety of course patterns, field studies, seminars, workshops, and other educational activities that will meet the educational needs of the College community. May be offered under any course title contained in the Catalog, using the numbers 150 through 199. Continuing Education studies may be repeated; however, graduation credit is limited to 6 units. 1-12 hours.

## DANCE


#### Abstract

About the Program Dance classes at Las Positas are offered in a state-of-the-art dance studio. From Introduction to Dance, Ballet, and Jazz Dance to Salsa and Ballroom, Physical Education offerings provide learning opportunities to the novice and experienced dancer alike. See page in this Catalog and the current Class Schedule. The Performing Arts area offers a highly popular class in Dance Production/Choreography that gives students a rare opportunity to experience being a performer, choreographer, costume and program designer. The class culminates in a series of three public dance concerts each semester in the College Theater. Dance performances are enthusiastically supported by the College and local communities.

See also: Physical Education Activities and Theater Arts


## DANCE (DANC)

## DANC 1 DANCE TECHNIQUE <br> 5 UNIT

Movement skills, rhythmic structure of dance, qualities of movement, special design and appreciation of dance. Emphasis on creation of individual and group compositions. Includes Afro-American dance, ballet, disco/ballroom dance, folk dance, jazz dance, modern dance, square dance, and tap dance (see Physical Education 2 hours. AA/AS GE. Transfer: CSU, UC (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

DANC 5 DANCE WORKSHOP
1.5 UNITS

Dance techniques, choreographic principles and stage presentation. Includes classical ballet, modern ballet, modern dance, polyrhythmic jazz, improvisation, Broadway musical, ethnic and folk dance. 1 hour lecture, 2 hours laboratory. Transfer: CSU, UC (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## DANC 6 DANCE PRODUCTION: CHOREOGRAPHY 1-3 UNITS

Choreographic principles of dance composition and stage presentation. Participation in dance production with the creation of new works directed toward large groups, trios, duets and solos, possibly leading to scheduled performances. Minimal participation in technical and business aspects of production. 3-9 hours laboratory. Transfer: CSU, UC (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## DESIGN TECHNOLOGY

Courses in Design Technology are not currently being offered.

## DESIGN TECHNOLOGY (DSNT)

DSNT 51A TECHNICAL ILLUSTRATION I<br>3 UNITS<br>Development of skills and knowledge involved in constructing threedimensional drawings. Shading techniques and rendering in black and white and pastels. Application and consideration of materials and equipment pertinent to technical illustration. Inking and lettering devices. Prerequisite: Drafting Technology 50 (completed with a grade of "C" or higher) or equivalent. 1.5 hours lecture, 4.5 hours laboratory. Transfer: CSU<br>Degree Applicable, Credit<br>Grading Option: GR

DSNT 51B TECHNICAL ILLUSTRATION II
3 UNITS
Development of skills and knowledge involved in axonometric projection. Applications and consideration of materials and equipment pertinent to technical illustration. Rendering conceptual drawings, specification of type styles and human factors. Prerequisite: Drafting Technology 51A (completed with a grade of "C" or higher). 1.5 hours lecture, 4.5 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## DNST 52 TECHNICAL GRAPHICS

A general approach to graphical communication and technical problem solving using sketches, traditional tools, and Computer-Aided Drafting (CAD). Introduction to the concepts and skills needed to graphically represent technical design data. Emphasis is on the development of visualization techniques and understanding design process as the foundation of the Design Technology sequence. 1.5 hours lecture, 4.5 hours laboratory. Transfer: CSU
Degree Applicable, Credit Grading Option: OP
DSNT 54 MANUFACTURING PROCESSES
2 UNITS
Overview of machine shop procedure, welding, and general manufacturing processes, practice in the use of hand tools, basic machine tools, and welding equipment; understanding the relationship between manufacturing processes and design. 1 hour lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## DSNT 55 BLUE PRINT READING AND SKETCHING 2 UNITS

Orthographic projection (or equivalent), principles of sectioning, functional drawing practices, dimensioning; sketching, using orthographic and isometric principles; familiarity with specifications; reading of blueprints; interpretation of various symbols commonly used; interpretation of materials lists and bills of materials; making of takeoffs. 1 hour lecture, 3 hours laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

## DSNT 57 ELECTRICAL SYSTEMS

2 UNITS
Introduction to electrical systems, components for electrical systems and circuits, basic electrical theorem, magnetism, and electrostatics for application to design process. Strongly recommended: Mathematics 36 or Mathematics 38.1 hour lecture, 3 hours laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: GR

## DNST 61 ELECTRONIC DESIGN

3 UNITS
Preparation of electrical and electronic drawings using standard graphical symbols and annotation currently utilized in industry, including wiring, cable, interconnecting, logic, and schematic diagrams. Introduction to printed circuit board layout and design using CAD and surface mounting technology. Prerequisite: Design Technology 62A (may be taken concurrently). 1.5 hours lecture, 4.5 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## DSNT 62A COMPUTER-AIDED DRAFTING (CAD)

3 UNITS
Introduction to the basic understanding of Computer-Aided Drafting, with emphasis on user terminology and exposure to various types of CAD systems, hardware, and associated software. How to set up drawings, create geometric shapes and constructions to form multiviews, and use special editing operations that increase productivity. Prerequisite: Design Technology 52 (may be taken concurrently). 1.5 hours lecture, 4.5 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

Continuation of the knowledge and skills learned in Design Technology 62 A , focusing on the design processes to complete and present
drawings and accompanying documentation effectively using CAD; dimensioning, tolerancing, and crosshatching to facilitate creation of multiview layouts, managing symbol libraries to streamline pictorial assemblies, and plotting/presentation techniques to captivate. Prerequisite: Design Technology 62A (completed with a grade of " C " or higher). 1.5 hours lecture, 4.5 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: GR

## DSNT 62C THREE-DIMENSIONAL MODELING

3 UNITS
This course develops skills in visualizing and drawing three-dimensional shapes for modeling, testing, analysis, manufacturing, assembly, and marketing, as well as form the basis of computer animations and virtual worlds. A variety of skills and techniques for drawing, designing, editing, and display of 3-D wireframes, surfaces, and solids will be studied. Prerequisite: Design Technology 62B (completed with a grade of "C" or higher). 1.5 hours Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: GR

## DSNT 65 ELECTRONIC DESIGN DRAFTING

Preparation of logic diagrams with the use of logic symbols. Introduction to printed circuit design. Analog and digital printed circuit layout and taping techniques. Printed circuit documentation and parts list. Strongly Recommended: Drafting Technology 61 (or equivalent) or Engineering 20 (or equivalent). 1.5 hours lecture, 4.5 hours laboratory. Transfer: CSU

Degree Applicable, Credit
Grading Option: GR

## DSNT 66A MECHANICAL DESIGN CONCEPTS

3 UNITS
Continued refinement of the principles of Mechanical Design Technology through original design and analysis, application of descriptive geometry, auxiliary views and revolutions to mechanical detail drawings, and geometric tolerancing applied to complete design assemblies. Prerequisite: Design Technology 52 (completed with a grade of " $C$ " or higher). 1.5 hours lecture, 4.5 hours laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: GR

## DSNT 66B ELECTRO-MECHANICAL DESIGN

3 UNITS
Continuation of mechanical design principles with the addition of electronic/electrical concepts. Part design with concentration on the flow and interaction between manufacturing and design, documentation, revision systems, Engineering change orders and requests, complex drawing and notation of entire systems. Also includes résumé, portfolio, and interview preparation, career opportunities, skills and attitudes necessary to succeed in industry. Prerequisites: Design Technology 61 and 66A (both completed with a grade of "C" or higher). 1.5 hours lecture, 4.5 hours laboratory. Transfer: CSU

Degree Applicable, Credit
Grading Option: GR

## DNST 69 STRUCTURAL DESIGN CONCEPTS 4 UNITS

Introduction to technical statics, including resolution of forces and basic coplanar force systems. Emphasis on graphical analysis. Prerequisite: Mathematics 36 or Mathematics 38 (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## DSNT 70 MANUFACTURING AND DESIGN USING PRO/ENGINEER

3 UNITS
Fundamentals of computer-aided design and drafting using Pro/ ENGINEER software, a 3-D solid modeler. Application of operating system, software, hardware, and peripherals in creating manufacturing models. Prerequisite: Engineering 20 or Design Technology 52 (completed with a grade of "C" or higher) or equivalent. Strongly recommended: Design Technology 66A. 2 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 3 times) Degree Applicable, Credit

Grading Option: GR

DSNT 71 ASSEMBLY AND DESIGN USING PRO/ENGINEER 3 UNITS
Continuation class in a series for developing fundamentals of computer-aided design using Pro/ENGINEER software, a 3-D solid modeler. Application of the Pro/ENGINEER CAD System in assembling manufacturing models and creating drawings. Prerequisite: Design Technology 70 (completed with a grade of "C" or higher). Strongly recommended: Design Technology 66B. 2 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 3 times)
Degree Applicable, Credit
Grading Option: GR

DSNT 75 DESIGN MATERIALS TECHNOLOGY 2 UNITS
Introduction to physical and mechanical characteristics and behavior of materials used in design and engineering applications. Emphasis will be on material processing of metals, ceramics, and polymers; basics of metallurgy, tension testing, hardness testing, and heat treatment. Strongly recommended: Chemistry 31 . 1 hour lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## DSNT 76 GRAPHICAL KINEMATICS

2 UNITS
A study of elementary mechanisms with emphasis on the fundamentals of displacement, velocity and acceleration, and on the application of these to the analysis and design of mechanisms such as linkages, slides, cams, cranks, gears, and gear-trains. Strongly recommended: Engineering 20 or Design Technology 52 and Mathematics 36 or Mathematics 38. 1 hour lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## EARLY CHILDHOOD DEVELOPMENT

## - otgree - craticate

## About the Program

The care and education of young children demands a high level of personal and professional commitment, integrity, education, and enthusiasm. The Early Childhood Program provides students with a fundamental understanding of the principles of child growth and development as well as experience in the application of these principles.

The ECD program is designed to prepare students to:

- Create enriching educational environments for young children
- Embrace family-focused practices
- Develop skills to support young children's understanding of diversity and inclusion
- Support children's social-emotional well-being
- Develop a disposition toward self-reflective practice and critical thinking
- Apply theories of child development and educational pedagogy into direct work with children and families


## Degrees/Certificates

- Degrees:
- AA - Early Childhood Development
- AA - Early Childhood Intervention
- Certificates of Achievement:
- Associate Teacher
- Basic Teacher
- Early Childhood Intervention
- Family Child Care


## Career Opportunities

The ECD program prepares students to work in a variety of settings with young children and their families:

- Early childhood centers and home-based programs
- Elementary schools
- After-school programs
- Special education and early intervention
- Early childhood mental health


## Transferability

Students will be prepared to pursue a baccalaureate major in early childhood education, multi-subject credentialing programs, elementary education, and early childhood mental health, special education or early intervention. Many ECD units are transferable to four-year institutions for elective credit, but a counselor should be consulted for specific transfer information.

The Early Childhood Department is a participant of the Curriculum Alignment Project (CAP). A key effort of the Curriculum Alignment Project is to facilitate the transfer of the courses below as an integrated course of study promoting access to ongoing education and degree attainment. These courses will ease the transfer between many community colleges and may be accepted by many California State Universities. The CAP courses include: ECD 50, ECD 51, ECD 54, ECD 62, ECD 63, ECD 69, ECD 79 and ECD 90.

## AA - Early Childhood Development

Freshman Year
Early Childhood Development 50 (Principles and Practices).......................... 3
Early Childhood Development 56 (Child Growth and Development)......... 3
Early Childhood Development 62 (Child, Family and Community)............... 3
Early Childhood Development 63 (Early Childhood Curriculum)................. 4
Electives*........................................................................................................ 0-4
Sophomore Year
Early Childhood Development 54 (Child Health, Safety, and Nutrition).. 3 Early Childhood Development 60
(Introduction to the Young Child with Exceptional Needs)..................... 3
Early Childhood Development 69
(Child Study: Observation and Assessment).......................................................... 3
Early Childhood Development 79
(Teaching in a Diverse Society) ................................................................................ 3
Early Childhood Development 90
(Practicum—Supervised Experience)...................................................................... 4
Early Childhood Development 95*** (Work Experience)............................... 1
Early Childhood Development 96*** (Work Experience Seminar)............. 1
General Education Courses.
Total units required .. 60

## Suggested ECD Electives:

ECD 15 (Problems of Childhood)
ECD 40 (Social and Emotional Foundations for Early Learning)
ECD 61 (Literature for the Young Child)
ECD 64 (Play: Materials and Environments)
ECD 65 (Administration)
ECD 67 (Infant and Toddler Development and Care Giving)
ECD 68 (Program Supervision)
ECD 74 (Child Guidance)
ECD 78 (Language Development)
ECD 80 (Advanced Topics in Childhood Development)
ECD 83 (Adult Supervision)
ECD 91 (Adaptive Curriculum for Children with Exceptional Needs)
**NOTE: ECD 51 has been inactivated at Las Positas College beginning Fall 2011. ECD 56 has replaced it in degree and certificate requirements; students who have rights to the College Catalog 2010-12 may fulfill their degree or certificate requirements with ECD 51.
***See current College Catalog, page 168, for details on Work Experience.

## AA - Early Childhood Intervention

Freshman YearEarly Childhood Development 50 (Early Childhood Principlesand Practices).3
Early Childhood Development 54
(Child Health, Safety and Nutrition) .....  3
Early Childhood Development 56(Child Growth and Development) 3
Early Childhood Development 62 (Child, Family and Community)........ 3
Early Childhood Development 63 (Early Childhood Curriculum). .....  4
General Education Courses
Sophomore Year
Early Childhood Development 40
(Social and Emotional Foundations for Early Learning) .....  3
Early Childhood Development 60
(Introduction to the Young Child with Exceptional Needs). .....  3
Early Childhood Development 67
(Infant and Toddler Development) .....  3
Early Childhood Development 90(Practicum-Supervised Experience) 4
Early Childhood Development 91
(Adaptable Curriculum for Children with Exceptional Needs) .....  3
General Education Courses
Required in addition to the above:
Early Childhood Development 69
(Child Study Through Observation) 3
Early Childhood Development 79 (Teaching in a Diverse Society).. ..... 3
Total units required ..... 60
Suggested ECD Electives:Early Childhood Development 83 (Adult Supervision)Early Childhood Development 95 (Work Experience)Early Childhood Development 95 (Work Experience Seminar)
Recommended General Education Courses
Psychology 4 (Brain, Mind, and Behavior)
Psychology 15 (Problems of Childhood)
Certificate of Achievement Associate Teacher
Early Childhood Development 50(Early Childhood Education and Care) 3
Early Childhood Development 56 (Child Growth and Development).. 3Early Childhood Development 62 (Child, Family and Community)........ 3
Early Childhood Development 63 (Early Childhood Curriculum). .....  4
Total Units Required ..... 13

## Certificate of Achievement Basic Teacher

Early Childhood Development 50 (Principles and Practices)................... 3 Early Childhood Development 56 (Child Growth and Development).. 3 Early Childhood Development 62 (Child, Family and Community)........ 3 Early Childhood Development 63 (Early Childhood Curriculum)........... 4 Early Childhood Development 60 (Introduction to the Young Child with Exceptional Needs).

Select one of the following for 3 units:
Early Childhood Development 40
(Social and Emotional Foundations for Early Learning) or
Early Childhood Development 54
(Child Health, Safety, and Nutrition) .... 3
Early Childhood Development 69 (Child Study: Observation and Assessment) or
Early Childhood Development 79 (Teaching in a Diverse Society)... 3
Early Childhood Development 95*** (Work Experience)............................ 1
Early Childhood Development 96*** (Work Experience Seminar) .......... 1
Early Childhood Development 90
(Practicum-Supervised Experience). ... .4

Total units required.......................................................................................... 25
**NOTE: ECD 51 has been inactivated at Las Positas College beginning Fall 2011. ECD 56 has replaced it in degree and certificate requirements; students who have rights to the College Catalog 2010-12 may fulfill their degree or certificate requirements with ECD 51.
***See current College Catalog, page 168, for details on Work Experience.

## Certificate of Achievement Early Childhood Intervention Assistant

Early Childhood Development 40
(Social and Emotional Foundations for Early Learning)......................... 3
Early Childhood Development 50
(Early Childhood Education and Care). ... 3
Early Childhood Development 54 (Child Health, Safety, and Nutrition).. ... .3
Early Childhood Development 56
(Child Growth and Development). .... 3
Early Childhood Development 60 (Introduction to the Young Child
with Exceptional Needs).


Early Childhood Development 62 (Child, Family and Community)........ 3
Early Childhood Development 63 (Early Childhood Curriculum)........... 4
Early Childhood Development 67 (Infant and Toddler Development). 3 Early Childhood Development 90
(Practicum—Supervised Experience).. .... 4
Early Childhood Development 91
(Adaptable Curriculum for Children with Exceptional Needs)............ 3
Total units required 33
It is strongly recommended that students complete on additional Early
Childhood Development course listed below. With this additional course and the required education courses, a student would be eligible for the Master Teacher Permit on the Child Development Permit Matrix.

Early Childhood Development 83 (Adult Supervision). ... 2

## Certificate of Achievement Family Child Care

Early Childhood Development 50
(Principles and Practices). ... 3
Early Childhood Development 56 (Child Growth and Development)....... 3 Early Childhood Development 62 (Child, Family and Community)........ 3 Early Childhood Development 70 (Family Child Care Profession).......... 2
Early Childhood Development 95 (Work Experience)..............................-7
Early Childhood Development 96 (Work Experience Seminar)................ 1

Total units required. 20-22

## *Electives

Select from the following for a minimum of 7 units:
Early Childhood Development 15 (Abnormal Child Psychology) Early Childhood Development 54 (Child Health, Safety and Nutrition)
Early Childhood Development 60
(Teaching Special Needs Infants and Toddlers)
Early Childhood Development 64 (Play: Materials and Environments)

Early Childhood Development 67
(Infant and Toddler Development and Care Giving)
Early Childhood Development 69
(Child Study: Observation and Assessment)
Early Childhood Development 73
(Family Child Care Provider Advanced Enrichment Course)
Early Childhood Development 74 (Discipline Strategies) Early Childhood Development 81
(Planning Curriculum for the School-Age Child)

## EARLY CHILDHOOD DEVELOPMENT (ECD)

These courses are designed to satisfy the recommendations of the Department of Social Services, Title 22, regarding child care personnel and the higher standards required by the Commission on Teacher Credentialing.

## ECD 15 ABNORMAL CHILD PSYCHOLOGY <br> 3 UNITS

An exploration of the emotional, cognitive, developmental, and behavioral problems of childhood and adolescence. Topics include: common problems of adjustment; the effects of stress, abuse, and traumas on development; mental retardation, autism and other developmental disabilities; normal and abnormal patterns of attention, conduct, mood, anxiety, sleep, eating, sex, learning and speech. Examination of the causes of mental health problems in children and adolescents and approaches to treatment. Students who have completed or are enrolled in Psychology 15 may not receive credit. 3 hours lecture. AA/AS GE. Transfer: CSU; CSU GE: D9
Degree Applicable, Credit
Grading Option: OP

## ECD 40 SOCIAL AND EMOTIONAL

 FOUNDATIONS FOR EARLY LEARNING3 UNITS
This course will focus on the healthy social and emotional development of young children as the foundation for children's early learning. Students will become aware of the role of the teacher in establishing an environment that promotes the healthy social and emotional development of young children. Strongly recommended: Early Childhood Development 51, and Early Childhood Development 62. 3 hours lecture. Transfer: CSU

Degree Applicable, Credit Grading Option: GR
ECD 50 EARLY CHILDHOOD PRINCIPLES AND PRACTICES 3 UNITS
Historical and contemporary systems of Early Childhood group care, career opportunities, licensing requirements, professional qualifications, differing orientations to early childhood education, developmental stages of young children as related to quality programs that have developmentally appropriate and inclusive curriculum. 3 hours lecture.
Degree Applicable, Credit
Grading Option: GR

## ECD 52 CHILDHOOD AND ADOLESCENCE 3 UNITS

Concentrating on the portions of the lifespan from middle childhood continuing through adolescence and addressing both typical and atypical children. Biological changes such as puberty, brain, cognitive development, changes in family and peer relationships and identity development. Includes an understanding of the various contexts in which this age group develop, such as family, peer groups, school, and work. Emphasis on the continuity, observation, scientific methods, and stages of development. 3 hours lecture. AA/AS GE. Transfer: CSU, UC. Degree Applicable, Credit

Grading Option: GR
ECD 54 CHILD HEALTH, SAFETY AND NUTRITION 3 UNITS
Aspects of nutrition, health and safety that promote and maintains the health and well-being of all children and adults who work with young children. Topics include health and nutritional guidelines, maintaining
safe and healthy learning environments, state regulations, policies and procedures, common childhood illness, infectious diseases, schoolfamily collaboration, emergency preparedness, First Aid and injury prevention. 3 hours lecture. CSU Transfer.
Degree Applicable, Credit
Grading Option: GR

## ECD 56 CHILD GROWTH AND DEVELOPMENT 3 UNITS

A study of the major physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from conception through adolescence. There will be an emphasis on interactions between maturational processes and environmental factors. While studying developmental theory and investigative research methodologies, students will observe children, evaluate individual differences and analyze characteristics of development at various stages. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: D7; IGETC: 4G Degree Applicable, Credit

Grading Option: GR

## ECD 60 INTRODUCTION TO THE YOUNG CHILD

 WITH EXCEPTIONAL NEEDS3 UNITS
Introduction to educational philosophies for educating infants and children with exceptional needs. Typical and atypical developmental characteristics and abilities in infants and preschoolers. Assessments, interventions, and learning environments for the infant and preschooler with exceptional needs. Prerequisite: Early Childhood Development 51 (completed with a grade of "C" or higher). 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## ECD 61 LITERATURE FOR THE YOUNG CHILD 3 UNITS

An introduction to young children's literature, the development of speech and language and the exploration of teaching techniques which promote language, literacy and literature for the young child. Selection, evaluation and use of fiction, non-fiction, prose and poetry from existing written and/or recorded children's literature in the early childhood classroom. Approaches to reading books, storytelling, story writing, and use of puppets, flannel boards and props to facilitate children's language and appreciation of literature. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit Grading Option: GR
ECD 62 CHILD, FAMILY, AND COMMUNITY 3 UNITS
Patterns of family living in contemporary society including the varying roles and interactions of family members; demographic, socio-cultural, racial, economic and developmental factors affecting family life and their implications; relationship of the family to early care and education and to community resources. 3 hours lecture. AA/AS GE. Transfer: CSU; CSU GE D7
Degree Applicable, Credit
Grading Option: GR

## ECD 63 EARLY CHILDHOOD CURRICULUM <br> 4 UNITS

Professional application of the principles of human growth and development in: the study of play based inclusive curriculum, the physical environment and learning experiences including program content, the use of materials, the facilitation and guidance of all children's experiences based on developmentally appropriate principles, the methods used to meet all children's physical, social, emotional, cognitive and creative needs within cultural context. Prerequisite: Early Childhood Development 50 and Early Childhood Development 51 (both completed with a grade of ' $C$ ' or higher). 4 hours lecture or 3 hours lecture, 3 hours laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: GR

## ECD 64 PLAY: MATERIALS AND ENVIRONMENTS 3 UNITS

 Application of principles of human growth and development in the consideration of play materials and environments for children from birth though early elementary. The selection and development of play materials and environments that are developmentally, culturally,and age-appropriate. Prerequisite: Early Childhood Development 51 (completed with a grade of " C " or higher). 3 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: GR
ECD 65 ADMINISTRATION
3 UNITS
An overview of administrative principles and practices of Early Care and Education facilities; program planning, organizational structures, financial management, personnel policies, records; nutrition program and food purchasing; relationships with families, community, and regulatory agencies; requirements of State and Federal programs; legal and ethical issues. Prerequisite: Early Childhood Development 62 and Early Childhood Development 63 (both completed with a grade of " C " or higher). 3 hours lecture. Transfer: CSU
Degree Applicable, Credit Grading Option: GR

ECD 67 INFANT AND TODDLER DEVELOPMENT AND CARE GIVING

3 UNITS
Analysis of infant and toddler development and care, birth through 36 months. Study of current caregiving practices in infant/toddler centers and family day care homes. Examination of best practices, responsive caregiving techniques, environments, infant/toddler learning foundations, health, safety, and licensing requirements. Prerequisite: Early Childhood Development 51 (completed with a "C" or higher). 3 hours lecture.Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## ECD 68 PROGRAM SUPERVISION

3 UNITS
Management of Early Care and Education programs which includes: Strategic planning, group dynamics, supervision of staff and volunteers, development of motivation and morale, leadership skills, functions of personnel, interviewing techniques, interpersonal and group conflicts, staff evaluations, and working effectively with families and advisory boards. Designed to provide knowledge of methods and principles of working with adults in a supervisory capacity in Early Care and Education settings. Prerequisite: Early Childhood Development 62 and Early Childhood Development 63 (both completed with a grade of "C" or higher.) 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## ECD 69 CHILD STUDY: OBSERVATION

 AND ASSESSMENT3 UNITS
Current approaches for observing and recording the behavior of infants and young children using various scientific techniques. Effective observations that build on respecting and fostering all children's competence, striving for objectivity and individualizing programs to meet individual children's learning and developmental assessment. Direct observational experience and application of methods is required weekly. Prerequisite: Early Childhood Development 56 (completed with a grade of "C" or higher). 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## ECD 70 FAMILY CHILD CARE PROFESSION 2 UNITS

This course will focus on all aspects of setting up and operating a family child care home business. The course explores creation of an optimum child care environment, relationships with the child's parents, the impact of child care on the provider's family, and the relationship between family child care homes and centers. 2 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## ECD 73 THE FAMILY CHILD CARE PROVIDER

 ADVANCED ENRICHMENT COURSE 2 UNITSThis course of instruction is designed to assist the family child care provider in developing new and advanced knowledge and skills that will enhance the provider's career and self-esteem. It examines the blending of the business and the nurturing sides of family child care and
offers creative coping solutions aimed at promoting provider longevity, credibility, professionalism, ultimately resulting in his/her home/ business providing quality child care. 2 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: GR

## ECD 74 CHILD GUIDANCE <br> 2 UNITS

This course introduces practical principles and techniques for developmentally and culturally appropriate guidance. Emphasis is on encouraging self-esteem and cultural awareness, effective communication skills, and direct and indirect guidance techniques and strategies. Upon completion of the course, students should be able to demonstrate strategies which encourage positive social interactions, promote conflict resolution and develop self-control, self-motivation and self-esteem in children. 2 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## ECD 78 LANGUAGE DEVELOPMENT <br> 3 UNITS

Principles of language development of young children. Skills involved in communication. Facilitating acquisition and use of communication skills. Prerequisite: ECD 51 (completed with a grade of "C" or higher). 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## ECD 79 TEACHING IN A DIVERSE SOCIETY 3 UNITS

Critical examination of societal and personal attitudes and beliefs, values, assumptions and biases about culture, race, language, identity, family structures, ability, socio-economic status and other issues influenced by systemic oppression. Recognize and confront barriers that interfere with one's ability to work effectively with diverse populations of children and families. Enhance teacher skills for educating children in a pluralistic society. 3 hours lecture. AA/AS GE. Transfer: CSU; CSU GE: D7 Degree Applicable, Credit

Grading Option: GR

## ECD 80 ADVANCED TOPICS IN CHILDHOOD DEVELOPMENT

1-3 UNITS
Development and presentation of advanced topics in Early Childhood Development. Emphasis on creative arts, math, science, literacy, music and movement. 1-3 hours lecture. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: GR
ECD 81 PLANNING CURRICULUM FOR THE SCHOOL-AGE CHILD

3 UNITS
Fundamentals of planning, implementing and evaluating curriculum for before and after school care of school-age children (K-6). Emphasis on developmental levels, age-appropriate activities and developing an integrated curriculum. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

ECD 82 COMMUNICATING EFFECTIVELY WITH THE SCHOOL-AGE CHILD

3 UNITS
Communication skills that promote self-discipline, techniques for resolving conflicts with the school-age child and effective interactions with parents. Consideration of: environment, appropriateness of program, materials, games and equipment; developmental age of children as instrumental to behavior management; development of pro-social behavior, multicultural awareness, diversity issues, and antibias curriculum. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## ECD 83 ADULT SUPERVISION

2 UNITS
Methods and principles of mentoring and supervising adults in early care and education settings. Emphasis on the role of experienced classroom teachers who function as mentors to new teachers while simultaneously addressing the needs of children, families and other staff. Prerequisite: Early Childhood Development 62 and Early Childhood Development 63 (both completed with a grade of " $C$ " or higher). 2 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

ECD 90 PRACTICUM: SUPERVISED EXPERIENCE 4 UNITS
Direct practicum experience working with young children.
Observation and evaluation of individual children, group activities and roles of adults in the program. Planning appropriate learning experiences, developing educational plans, planning family conferences, and discussion of on-site experiences. Prerequisite: Early Childhood Development 63 (completed with a grade of " $C$ " or higher). 2 hours lecture, 6 hours laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: GR
ECD 91 ADAPTIVE CURRICULUM FOR CHILDREN WITH EXCEPTIONAL NEEDS

3 UNITS
Direct experience working with young children in special day classes or inclusive settings: application of best practices of both the fields of early childhood development and special education in adapting curriculum to meet the individual needs of children within an inclusive classroom setting. Observation of the assessment process by the special education team and assisting in the implementation of the educational plan. Prerequisite: Early Childhood Development 60 and Early Childhood Development 90 (both completed with a grade of "C" or higher). 2 hours lecture 3 hours laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: GR
ECD 95 WORK EXPERIENCE
1-3 UNITS
College supervised on-the job training in early childhood programs. Cooperative effort between, student, supervisor and instructor to accomplish professional work objectives and broaden experiences. Corequisite: Early Childhood 96. 5-15 hours experience per week. (May be repeated to a total of 16 units, including the ECD 96 class) Transfer: CSU Degree Applicable, Credit

Grading Option: GR
ECD 96 WORK EXPERIENCE SEMINAR 1 UNIT
Discussion and analysis of typical problems often encountered by employees at the workplace. Application of National Association for the Education of Young Children (NAEYC) Code of Ethical Conduct to difficult situations that occur at the job site. Develop and complete measurable developmentally appropriate goals in early care and education settings. Corequisite: Early Childhood Development 95. 1 hour lecture. (May be repeated to a total of 16 units, including the ECD 95 class) Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## ECD 99 SPECIAL TOPICS IN EARLY

 CHILDHOOD DEVELOPMENT0.3-3 UNITS

Designed to explore special interest subjects drawn from the field of Early Childhood Development. Emphasis will be on topics of practical use for persons employed in the field of Early Childhood Development, as well as for the person interested in learning about this field. Prerequisites may vary for specific topics. 0.3-9 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
ECD 100 SUPPORT FOR EARLY CHILDHOOD SUCCESS 1 UNITS
This is a one-semester course for students concurrently enrolled in one of four Early Childhood Development (ECD) core courses. The core courses include: ECD 50 Principles and Practice, ECD 56 Child Growth and Development, , ECD 62 Child Family and Community, and ECD 63 Early Childhood Curriculum. The course is designed to assist both English Language Learning students and students needing Basic Skills for academic success including understanding ECD requirements, critical thinking, time management, team building and project management. 1 hour lecture. (May be taken 3 times) Non-degree Applicable, Credit

Grading Option: P/N

## ECOLOGY

Ecology 10 is one of many courses offered by the Biology Department. It fulfills various degree, certificate, transfer, and/or career requirements. For more details about how Ecology 10 fits into different pathways, please see "Biology" in the catalog, page 60 .

## ECOLOGY (ECOL)

ECOL 10 HUMANS AND THE ENVIRONMENT 3 UNITS
Identification of problems created by humans' modification of their environment by focusing on ecological interactions involving the human species; investigating the life processes of organisms as they relate to specific environments. 3 hours lecture. AA/AS GE. Transfer: CSU, UC*; CSU GE: B2; IGETC: 5B
Degree Applicable, Credit
Grading Option: OP

## ECONOMICS

## About the Program

Economics is central to many issues facing us today; job creation, wage determination, health-care reform, future of social security, economic prosperity and environmental sustainability all require knowledge of economics. Economics, often called the "science of choice," analyzes how individuals, households, firms, and governments make decisions and how they interact with other decision makers in the economy. Understanding those interactions helps explain the economic dimensions of many everyday issues.

## Career Opportunities

Economics courses at Las Positas College provide students with the education necessary to embark on rewarding careers in business, law, and/or public sector. The courses, which combine economic theory with a wide range of real-world applications help students develop and master problem-solving skills, analytical clarity, as well as writing and communication abilities.

## Transferability

Las Positas College Economics courses prepare students for future coursework in Economics and Business. The courses fulfill lowerdivision requirements for four-year transfer institutions.

## ECONOMICS (ECON)

## ECON 1 PRINCIPLES OF MICROECONOMICS 3 UNITS

Economic analysis of market systems, price theory, including supply and demand analysis, marginal utility, elasticity, cost and revenue concepts, perfect and imperfect competition, international trade theory, pricing of the factors of production, poverty and income inequalities. Strongly Recommended: English 1A eligibility. Prerequisite: Mathematics 55 or Mathematics 55B or Mathematics 55Y (completed with a grade of "C" or higher) or an appropriate skill level demonstrated through the mathematics assessment process. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: D2; IGETC: 4B Degree Applicable, Credit

Grading Option: OP

## ECON 2 PRINCIPLES OF MACROECONOMICS <br> 3 UNITS

Economic analysis of the theory of income determination, including national income analysis, business cycles, the consumption function, the multiplier, fiscal policy, monetary policy, money and banking, the public debt, economic growth and development, comparative economic systems and international trade. Strongly Recommended: English 1A eligibility. Prerequisite: Mathematics 55 or Mathematics 55B or Mathematics 55 Y (completed with a grade of "C" or higher) or an appropriate skill level demonstrated through the mathematics assessment process. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: D2; IGETC: 4B Degree Applicable, Credit Grading Option: OP

## ECON 5 ECONOMIC HISTORY OF THE U.S. <br> 3 UNITS

Origins and historical development of major economics forces, institutions and philosophies that have shaped the U.S. market economy. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: D2; IGETC: 4B Degree Applicable, Credit

Grading Option: OP

ECON 10 GENERAL ECONOMICS
3 UNITS
Survey of the economic system of the United States, covering such macroeconomic and microeconomic topics as supply and demand, firms' output and pricing decisions, international trade, comparative economic systems, economic growth, business cycles, fiscal and monetary policy, labor, money and banking. 3 hours lecture. AA/AS GE. Transfer: CSU, UC*; CSU GE: D2; IGETC: Area 4B. *No UC credit if taken after ECON 1 or 2
Degree Applicable, Credit Grading Option: OP

## ELECTRONICS TECHNOLOGY

DEGREE CERTIFICATE

## About the Program

The Electronics programs are designed to prepare students for a variety of career opportunities in the fields of electronics, computers, and related technologies. Students may prepare for direct job entry as technicians in computer sales, installation and repair. The Electronics Telecommunications Systems AS and Certificate programs prepare students for entry-level employment as technicians in the Electronics Communications (Telecommunications) fields. While units in the program are transferable to many institutions, students should consult a counselor for information.

## Degrees/Certificates

- AS - Electronics Telecommunications Systems
- Career Certifications:

Electronics Telecommunications Systems

## LaPTechS - Business/Electronics

Las Positas College Technical Support (LaPTechS) is an innovative entrepreneurial venture offering technical support services to the campus community. Within a work-based learning model, students get hands-on training in a workplace environment. Electronics and computer applications include troubleshooting, repair (hardware and software), configuration, help desk, customer service and job skills preparation. LaPTechS creates opportunities to learn all aspects of business operations, technical support, and the development of interpersonal skills.

See also: Computer Networking Technology

## AS - Electronics <br> Telecommunications Systems

Freshman Year
Electronics Technology 50 (Fundamentals of Electronics) or Electronics Technology 85.1, 85.2, 85.3, 85.4 $\qquad$
Electronics Technology 53** (Fabrication and Repair Techniques)......... 2
Computer Networking Technology 51 (A+ Computer Fundamentals)
or Electronics Technology 85.5, 85.6. $\qquad$
General Education Courses ${ }^{\text {§ }}$

## Sophomore Year

Electronics Technology 56A* (Radio Communications I)........................... 4
Electronics Technology 56B* (Radio Communications II).......................... 4
General Education Courses ${ }^{\S}$
Total units required
§Program-based General Education 3 unit requirement. See a counselor.
*This program is offered in alternate years: ET 56A-56B offered every other year.
**Electronics Technology 53 offered Summer Session only.

## Certificate of Achievement Electronics Telecommunications Systems

Electronics Technology 50 (Fundamentals of Electronics) or Electronics Technology 85.1, 85.2, 85.3, 85.4 $\qquad$ ... .6
Electronics Technology 53** (Fabrication and Repair Techniques)......... 2
Computer NetworkingTechnology 51 (A+Computer Fundamentals) or Electronics Technology 85.5, 85.6

3-4
Electronics Technology 56A* (Radio Communications I).......................... 4
Electronics Technology 56B* (Radio Communications II).......................... 4
Total units required. .19-20
*This program is offered in alternate years: ET 56A-56B offered every other year. **Electronics Technology 53 offered Summer Session only.

## ELECTRONICS TECHNOLOGY (ELEC)

## ELEC 50 FUNDAMENTALS OF ELECTRONICS <br> 6 UNITS

Fundamentals of DC and AC electronic circuits using resistors, capacitors, inductors, diodes, transistors, and integrated circuits. Measurements using the digital multimeter and oscilloscope. Strongly Recommended: 1 year high school algebra. 5 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## ELEC 52 CIRCUITS AND SYSTEMS

4 UNITS
Analysis and troubleshooting of operational amplifier circuits with negative and positive feedback, such as linear amplifiers, comparators, active filters, non-linear waveshaping circuits, and oscillators. Interfacing to transducers; digital to analog and analog to digital conversion. Linear and switching power regulators. Prerequisite: Electronics Technology 50 (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## ELEC 53 FABRICATION AND REPAIR TECHNIQUES 2 UNITS

Soldering and removal of components on printed circuit boards, including surface mounted components. Prerequisite: Electronics Technology 50 (completed with a grade of "C" or higher). 1 hour lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit Grading Option: OP

## ELEC 59 OPTICAL ELECTRONICS

2 UNITS
Fundamental principles of light, geometric and wave optics, sources of light, displays, optical sensors, fiber optics, and opto-isolators. System applications of optical electronics. Prerequisite: Electronics Technology 50 (completed with a grade of " C " or higher). 1 hour lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
ELEC 70 INTRODUCTION TO ELECTRONICS 2 UNITS
A survey course in electronic technology. Ohm's Law and fundamental DC and AC circuit analysis; magnetism and capacitance; semiconductor technology with applications; digital building blocks with application to computer technology; survey of the electronic technology fields; use of basic electronic test equipment. Intended for non-majors.
Strongly Recommended: Elementary course in algebra. 1 hour lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## TELECOMMUNICATIONS

## ELEC 55 TELECOMMUNICATION EXAMINATION PREPARATIONS

3 UNITS
Designed to aid in passing the F.C.C. General Radiotelephone Operator License examination. Electronics theory, radiotelephone operations, and radiotelephone rules and regulations. A requirement for servicing of marine or aviation radio equipment. Prerequisite: Electronics Technology 50 (completed with a grade of " $C$ " or higher). 3 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR
ELEC 56A RADIO COMMUNICATIONS I
4 UNITS
Basic modulation techniques, radio transmitters, radio receivers, and the associated circuits employed by each. Circuits include AM, FM, PM, and SSB modulators and detectors, RF amplifiers, oscillators, and PLL circuits, frequency multipliers, voice processing circuits, filters, and squelch circuits. Includes specialized test equipment and the performance of EIA standard tests and measurements. Prerequisite: Electronics Technology 50 (completed with a grade of "C" or higher). 2 hours lecture, 6 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## ELEC 56B RADIO COMMUNICATIONS I

4 UNITS
A continuation of Electronics Technology 56A with emphasis on advanced circuits, total systems, and new technology. Includes transmission line theory, wave propagation, antenna theory, control systems, digital modulation techniques, transmitter and receiver combining, and electromagnetic interference control. Prerequisite: Electronics Technology 56A (completed with a grade of "C" or higher). 2 hours lecture, 6 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## F.A.C.E.T. COURSES

The F.A.C.E.T. (Fault Assisted Circuits for Electronics Training) program is an independent, self-paced, interactive computer-based training program in the field of electronics. This course of study allows students to earn college credit in electronics. Enrollment in the F.A.C.E.T program is open-ended throughout the semester. Courses numbered 85, 86, and 87 are F.A.C.E.T. courses.

## ELEC 85.1 DC FUNDAMENTALS

1.5 UNITS

Self-paced individualized course using interactive computer instruction on DC circuits with resistors connected in series, parallel, and seriesparallel. The use of Ohm's Law, DC power, and use of the digital multimeter. 4.5 hours laboratory. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

ELEC 85.2 AC1 FUNDAMENTALS
1.5 UNITS

Self-paced individualized course using interactive computer instruction on AC circuit measurements, use of the oscilloscope, transformers, RC \& RL circuits. Prerequisite: ET 85.1. (completed with a grade of " $C$ " or higher). 4.5 hours laboratory. Transfer: CSU (May be taken 3 times)
Degree Applicable, Credit
Grading Option: OP

## ELEC 85.3 AC2 FUNDAMENTALS

### 1.5 UNITS

Self-paced individualized course using interactive computer
instruction on electronic filters and resonant circuits. Prerequisite: ET 85.2. (completed with a grade of " C " or higher). 4.5 hours laboratory. Transfer: CSU (May be taken 3 times)
Degree Applicable, Credit
Grading Option: OP
ELEC 85.4 SEMICONDUCTOR DEVICES
1.5 UNITS

Self-paced individualized course using interactive computer instruction on diodes, diode rectification, zener diode voltage regulation, and transistor fundamentals. Prerequisite: ET 85.3. (completed with a grade of "C" or higher). 4.5 hours laboratory. Transfer: CSU (May be taken 3 times) Degree Applicable, Credit

Grading Option: OP

## ELEC 85.5 DIGITAL LOGIC FUNDAMENTALS

1.5 UNITS

Self-paced individualized course using interactive computer instruction on the fundamentals of digital logic gates and flip-flops. Prerequisite: Electronics Technology 85.4 (completed with a grade of "C" or higher or $70 \%$ minimum test score on pretest). 4.5 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## ELEC 85.6 DIGITAL CIRCUITS 1

1.5 UNITS

Self-paced individualized course using interactive computer instruction on digital counters, shift registers, and arithmetic circuits. Prerequisite: Electronics Technology 85.5 (completed with a grade of " $C$ " or higher or $70 \%$ minimum test score on pretest). 4.5 hours laboratory. Transfer: CSU
Degree Applicable, Credit Grading Option: OP

## ELEC 85.7 DIGITAL CIRCUITS 2

2 UNITS
Self-paced individualized course using interactive computer instruction on decoders, encoders, multiplexers, parity generator/checker, and troubleshooting MSI circuits. Prerequisite: ET 85.6 (completed with a grade of " $C$ " or higher). 6 hours laboratory.
Transfer: CSU (May be taken 3 times)
Degree Applicable, Credit Grading Option: OP

## ELEC 86.1 OPERATIONAL AMPLIFIER FUNDAMENTALS 1.5 UNITS

Self-paced individuali zed course using interactive computer instruction on the fundamentals of operational amplifiers. Prerequisite: ET 85.4 (completed with a grade of "C" or higher). 4.5 hours laboratory. Transfer: CSU (May be taken 3 times) Degree Applicable, Credit Grading Option: OP

## ELEC 86.2 OPERATIONAL AMPLIFIER APPLICATIONS 1.5 UNITS

Self-paced individualized course using computer instruction on operational amplifier applications, such as filters and integrators. Prerequisite: ET 86.1 (completed with a grade of "C" or higher). 4.5 hours laboratory. Transfer: CSU (May be taken 3 times) Degree Applicable, Credit Grading Option: OP

## ELEC 86.3 POWER SUPPLY REGULATION

1.5 UNITS

Self-paced individualized course using interactive computer instruction on power supply regulators and IC regulators. Prerequisite: ET 86.2 (completed with a grade of "C" or higher). 4.5 hours laboratory. Transfer: CSU (May be taken 3 times)
Degree Applicable, Credit
Grading Option: OP

## ELEC 87.1 DC NETWORK THEOREMS

1.5 UNITS

Self-paced individualized course using interactive computer instruction on network theorems, including Kirchhoff's voltage and current laws and Thevenin's theorem. Prerequisite: ET 85.1 (completed with a grade of "C" or higher). 4.5 hours laboratory. Transfer: CSU
(May be taken 3 times)
Degree Applicable, Credit
Grading Option: OP

ELEC 87.2 TRANSISTOR AMPLIFIER CIRCUITS 1.5 UNITS
Self-paced individualized course using interactive computer instruction on common base, common emitter, common collector, RC coupled, transformer coupled, and direct coupled transistor amplifiers. Prerequisite: ET 85.4 (completed with a grade of "C" or higher). 4.5 hours laboratory. Transfer: CSU (May be taken 3 times) Degree Applicable, Credit Grading Option: OP
ELEC 87.3 TRANSISTOR POWER AMPLIFIERS 1.5 UNITS
Self-paced individualized course using interactive computer instruction on transistor power amplifiers and Darlington pair operation. Prerequisite: ET 87.2 (completed with a grade of "C" or higher). 4.5 hours laboratory. Transfer: CSU (May be taken 3 times) Degree Applicable, Credit

Grading Option: OP

ELEC 87.4 TRANSISTOR FEEDBACK AMPLIFIERS
1.5 UNITS

Self-paced individualized course using interactive computer instruction on transistor feedback amplifiers. Prerequisite: ET 87.3 (completed with a grade of " C " or higher). 4.5 hours laboratory. Transfer: CSU (May be taken 3 times)
Degree Applicable, Credit
Grading Option: OP

## ELEC 87.5 FIELD EFFECT TRANSISTORS

Self-paced individualized course using interactive computer instruction on JFET and MOSFET operation and applications. Prerequisite: ET 85.4 (completed with a grade of "C" or higher). 4.5 hours laboratory. Transfer: CSU (May be taken 3 times)
Degree Applicable, Credit
Grading Option: OP
ELEC 87.6 THYRISTOR AND PHASE CONTROL CIRCUITS 1.5 UNITS
Self-paced individualized course using interactive computer instruction on thyristor operation and use to control electrical power. Prerequisite: ET 87.5 (completed with a grade of " $C$ " or higher) 4.5 hours laboratory. Transfer: CSU (May be taken 3 times) Degree Applicable, Credit

Grading Option: OP

ELEC 87.7 32-BIT MICROPROCESSOR
2 UNITS
Self-paced individualized course using interactive computer instruction on microprocessor operation, data transfer, programming, and interfacing. Prerequisite: ET 85.7 (completed with a grade of "C" or higher). 6 hours laboratory. Transfer: CSU (May be taken 3 times) Degree Applicable, Credit

Grading Option: OP

## EMERGENCY <br> MEDICAL SERVICES

## - degree $\Theta$ certificate

## About the Program

The Emergency Medical Services (EMS) program prepares students to achieve certification and licensure to enter into several EMS career paths. Students may begin their training by completing the first career
related courses within the program, EMS 61, "Emergency Medical Responder" with "First Responder" certification provided through the American Safety and Health Institute (ASHI), and EMS 81, "Emergency Medical Technician" with certification provided through the National Registry of Emergency Medical Technicians.

The program also includes the curriculum necessary to prepare students to become a Nationally Registered Emergency Medical Technician-Paramedic (NREMTP). Students who complete the program are eligible to participate in the National Registry Examination Process, and successful students will be eligible for licensure as an Emergency Medical Technician - Paramedic (EMT-P) in the State of California. The course of study within the EMT and Paramedic Programs is accredited by the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP) and approved by the Alameda County EMS Agency.

Additional courses are available in Community Cardiopulmonary Resuscitation leading to certification designed to prepare students to respond as "Citizen Responders" to emergencies in both the home and workplace environments. This course is ideal for students in Early Childhood Development programs. A course in Basic Life Support for the Health Care Provider is also offered for all students of other health science programs as training necessary for maintaining employment within their fields.

## Degrees/Certificates

- Degree:
- AS - Emergency Medical Services (EMS) - EMT Paramedic
- Certificate of Achievement:
- Emergency Medical Services (EMS) - EMT Paramedic


## Career Opportunities

Health Science is one of the most promising growth career areas in the United States. The EMT and the EMT-Paramedic get jobs in the public sector as an employee of a Fire Department or Health Department, or in the private sector of an Emergency Department, Trauma Center, Emergency Medical Health Clinic or responding under contract with a county emergency ambulance service. Many fire departments offer emergency medical services as a significant component of their duties and responsibilities. The EMS 61 and EMS 81 courses are also ideal for students whose ambition is to work in the fields of Public Safety, as Police Officers, Correctional Officers and/or Specialized Rescuers (i.e., Lifeguards, Ski Patrol, Water Craft Rescue Personnel and Air Medical Helicopter and Fixed Wing Flight Crews).

## Transferability

The EMS degree does not include the lower division requirements typical for four year institutions. General education requirements should be selected carefully based on the intended transfer institution. Very few four year EMS programs exist in the United States, and the ones that do may accept the classes from Las Positas as lower division requirements. The entire current EMS curriculum, except for the field training, is transferable to the CSU System as elective units.

## AS - Emergency Medical Services (EMS) EMT Paramedic ${ }^{\text {§ }}$

Health Science 52 (Basic Medical Terminology for Allied Health).......... 3 Emergency Medical Services 61 (First Responder)........................................ 2.5
Emergency Medical Services 81 (EMT-1 Basic)............................................. 6.5
Biology 50 (Anatomy and Physiology) ... 4

Emergency Medical Services 50 (EMT-P Prep Theory) ................................... 5
Emergency Medical Services 51 (EMT-P Human Systems)......................... 4
Emergency Medical Services 52 (EMT-P Pharm and Airway)..................... 4
Emergency Medical Services 53 (EMT-P Medical Syndromes)................. 5
Emergency Medical Services 54 (EMT-P ABD and Neuro Systems)......... 4
Emergency Medical Services 55 (EMT-P Cardiac and Resp Systems) ..... 4
Emergency Medical Services 56 (EMT-P Trauma and Shock).................... 4
Emergency Medical Services 57 (EMT-P Special Patient Populations)4
Emergency Medical Services 58 (EMT-P Paramedic Field Training)....9-11 General Education

Program Based GE Requirement: Speech 1 (Fundamentals of Speech Communication).
§ Approval by State Chancellor's Office Pending

## Certificate of Achievement <br> Emergency Medical Services (EMS) EMT Paramedic ${ }^{\text {§ }}$

Health Science 52 (Basic Medical Terminology for Allied Health).......... 3
Emergency Medical Services 61 (First Responder)........................................ 2.5
Emergency Medical Services 81 (EMT-1 Basic).......................................... 6.5
Biology 50 (Anatomy and Physiology) ......................................................... 4
Emergency Medical Services 50 (EMT-P Prep Theory) ................................. 5
Emergency Medical Services 51 (EMT-P Human Systems).......................... 4
Emergency Medical Services 52 (EMT-P Pharm and Airway)..................... 4
Emergency Medical Services 53 (EMT-P Medical Syndromes).................. 5
Emergency Medical Services 54 (EMT-P ABD and Neuro Systems)......... 4
Emergency Medical Services 55 (EMT-P Cardiac and Resp Systems) ..... 4
Emergency Medical Services 56 (EMT-P Trauma and Shock).................... 4
Emergency Medical Services 57 (EMT-P Special Patient Populations)... 4 Emergency Medical Services 58 (EMT-P Paramedic Field Training)....9-11

Total units required
59-61
§ Approval by State Chancellor's Office Pending

## EMERGENCY MEDICAL <br> SERVICES (EMS)

EMS 50 EMT-P PREPARATORY THEORY
5 UNITS
Overview of the emergency health care profession and the role of the Paramedic within the Emergency Medical Service (EMS) system. Development of communication competency skills in the use of radio equipment and when speaking to adjunct medical staff and EMS partner. Emphasis on legal issues and medical emergency record keeping. Principles and application of the language and terminology of medicine. Overview of the structure and function of the major body systems, organization of the body, and homeostatic mechanisms. Emphasis on evaluation and documentation skills used in the delivery of emergency care. Prerequisites: Emergency Medical Services 81 (completed with a grade of " B " or higher) and Biology 50 and Health Science 52 or EMS 62 (completed with a grade of "C" or higher). 5 hours lecture. Transfer: CSU
Degree Applicable, Credit Grading Option: GR
EMS 51 EMT-P HUMAN SYSTEMS 4 UNITS
Overview of the structure and function of the major body systems, organization of the body, immunologigial, and homeostatic mechanisms. Discussion of the underlying pathophysiological principles of emergent conditions. Prerequisite: Emergency Medical Services 50 (completed with a grade of "C" or higher). 4 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

EMS 52 EMT-P PHARMACOLOGY AND AIRWAY 4 UNITS
Basic principles of pharmacology, drug classifications, action of drugs, clinical uses, administration of drugs, and advanced airway techniques. Emphasis on drugs and solutions used in the pre-hospital emergency environment by paramedics, Prerequisite: Emergency Medical Services 51 (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## EMS 53 EMT-P MEDICAL SYNDROMES <br> 5 UNITS

Overview of the patient assessment techniques for the paramedic. Overview of the medical patient and presentation of principle of toxicology and infectious diseases and their management in a prehospital setting. Prerequisite: Emergency Medical Services 52 (completed with a grade of " C " or higher). 4 hours lecture, 3 hour laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## EMS 54 EMT-P ABD AND NEURO SYSTEMS

4 UNITS
Overview of the abdominal, genitourinary, gastrointestinal,
hematological, nervous, and endocrine systems of the human body for the field paramedic. Discussion of the emergencies that affect the systems and how to manage them in the prehospital environment.
Supervised clinical sessions at a hospital emergency department, labor and delivery suite, pediatric clinic, to include exposure to emergency, cardiac, surgical, obstetric, and pediatric patients with a clinical preceptor. Prerequisite: Emergency Medical Services 53 (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory Transfer: CSU
Degree Applicable, Credit Grading Option: OP

## EMS 55 EMT-P CARDIAC AND RESPIRATORY SYNDROMES

4 UNITS
Overview of prehospital evaluation and management of patients experiencing cardiac and respiratory emergencies, including monitoring and interpretation of ECG's. Comprehensive treatment through the use of advanced airway management, cardiac pharmacology, rapid defibrillation, and utilization of cardiac monitoring in the clinical setting. Supervised clinical sessions at a hospital emergency department, labor and delivery suite, pediatric clinic, to include exposure to emergency, cardiac, surgical, obstetric, and pediatric patients with a clinical preceptor. Prerequisite: Emergency Medical Services 54 (completed with a grade of " C " or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## EMS 56 EMT-P TRAUMA AND SHOCK

4 UNITS
Overview of prehospital evaluation and management of patients experiencing trauma emergencies, including monitoring and interpretation of ECG's, placement of intravenous lines. Comprehensive treatment through the use of advanced airway management, fluid resuscitation and shock treatment in the clinical setting. Supervised clinical sessions at a hospital emergency department, labor and delivery suite, pediatric clinic, to include exposure to emergency, cardiac, surgical, obstetric, and pediatric patients with a clinical preceptor. Prerequisite: Emergency Medical Services 55 (completed with a grade of " $C$ " or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## EMS 57 EMT-P SPECIAL PATIENT POPULATIONS 4 UNITS

Overview with an emphasis on evaluation and in hospital management of patients presenting with behavioral emergencies. Emphasis on the special medical needs of the geriatric patient. Focus on ambulance operations to include hazardous incidents, multicasualty incidents and mass casualty incidents caused by weapons of mass destruction or acts of terrorism. Supervised clinical sessions at a hospital emergency
department，labor and delivery suite，pediatric clinic，to include exposure to emergency，cardiac，surgical，obstetric，and pediatric patients with a clinical preceptor．Prerequisite：Emergency Medical Services 56 （completed with a grade of＂C＂or higher）． 3 hours lecture， 3 hours laboratory．Transfer：CSU
Degree Applicable，Credit Grading Option：OP

EMS 58 EMT－P PARAMEDIC FIELD TRAINING
9－11 UNITS
Clinical internship and field phase of paramedic training with a demonstration of advanced life support skills in a variety of emergency situations．Emphasis on clinical evaluation and intervention in the pre－hospital setting，Emergency Department，Psychiatric Emergency Services，Cardiac Intensive Care Unit，Labor and Delivery Trauma， Operating Room Anesthesia and Pediatric Clinic．Prerequisite： Emergency Medical Services 57 （completed with a grade of＂C＂or higher）． 480 to 600 total laboratory hours
Degree Applicable，Credit
Grading Option：OP

EMS 61 EMERGENCY MEDICAL RESPONDER 3 UNITS
Development of knowledge and skills necessary for recognizing and caring for emergency situations，including cardiopulmonary resuscitation，prevention of disease transmission，and automated external defibrillation．Designed for first responders in an emergency． Successful completion of the knowledge，skills tests and with a successful completion of the course at $80 \%$ accumulative points and the summative final at（ $80 \%$ ）qualifies for a American Safety and Health Institute（ASHI）＂First Responder＂Certificate and an American Heart Association＂Basic Life Support Health Care Provider＂Certificate． 2 hours lecture， 3 hours laboratory．Transfer：CSU
Degree Applicable，Credit
Grading Option：GR

## EMS 62 BASIC MEDICAL TERMINOLOGY FOR ALLIED HEALTH

3 UNITS
A basic course in medical terminology designed for students in studying for Allied Health careers such as Surgical Technologist， Paramedic，Pre－nursing，and Radiology Technician．Medical vocabulary with concentration on prefixes，suffixes，and root words．Emphasis on word dissection，definitions as applied to the body systems including the terminology used in surgical procedures．Concepts focus on comprehensive terminology，pronunciation and spelling core．Students who are currently enrolled in or have completed Health 52 or Health Science 52 may not receive credit． 3 hours lecture．Transfer：CSU Degree Applicable，Credit

Grading Option：GR

## EMS 70A COMMUNITY CARDIOPULMONARY RESUSCITATION

． 5 UNIT
Development of the knowledge，skills and personal judgment necessary to initiate and perform basic life support techniques in cardiopulmonary resuscitation（CPR）．Designed to citizens in the community．Successfully completion of the knowledge and skills test qualifies for American Red Cross Community（CPR）or American Heart Association Adult and Pediatric Heart Saver Certificate．Transfer：CSU （May be taken 4 times）
Degree Applicable，Credit
Grading Option：GR

## EMS 70B PROFESSIONAL CARDIOPULMONARY RESUSCITATION－CPR

． 5 UNITS
Development of knowledge，skills and personal judgment necessary to initiate and perform basic life support techniques as a health care professional．Successful completion of the knowledge and skills tests qualifies for an American Red Cross Professional or an American Heart Association Basic Life Support Health Care Provider Certificate． Prerequisite Emergency Medical Services 70A（completed with current－ valid certificate issued or equivalent）．Transfer：CSU（May be taken 4 times） Degree Applicable，Credit

Grading Option：GR

## EMS 81 EMERGENCY MEDICAL TECHNICIAN 6．5 UNITS

Provides training in the foundation skills and knowledge required of the EMT scope of practice．The EMT certification is the minimum requirement for ambulance attendants and most entry level firefighter positions．EMT certification is also required for entry into paramedic training．This training program is accredited by the Alameda County Emergency Medical Services District．Prerequisite：Emergency Medical Services 61 （completed with a grade of＂ B ＂or higher or current Emergency Medical Responder certification and Basic Life Support CPR Recognition with AED）． 5 hours lecture， 4.5 hours laboratory． Transfer：CSU
Degree Applicable，Credit
Grading Option：GR

EMS 91 EMERGENCY MEDICAL TECHNICIAN REFRESHER

1．5 UNITS
Provides a refresher in the foundation and knowledge required of the EMT－ 1 scope of practice．The EMT－ 1 certification is the minimum requirement for ambulance attendants and most entry－level firefighter positions．EMT－1 certification is also required for entry into paramedic training．This refresher program is accredited by the Alameda County Emergency Medical Services Agency．The course provides 24 hours of continuing education units and skills verification testing that EMT＇s must complete every two years．Prerequisite：Emergency Medical Services 81 （completed with a grade＂B＂or higher）． 1.5 hours lecture． Transfer：CSU（May be taken 4 times）
Degree Applicable，Credit
Grading Option：GR

## ENGINEERING

## About the Program

The Engineering Transfer program at Las Positas College is designed to prepare students to transfer into the upper division（junior class）of an engineering major at a four－year institution．The transfer program includes rigorous coursework from several different departments， including Engineering，Mathematics，Physics，Chemistry and Computer Science．Although students are considered general engineering majors at Las Positas，students will transfer to specific engineering departments at four－year institutions．Students interested in majoring in engineering should discuss their course planning with a counselor to ensure they are following the guidelines for transferring to a four－ year college．

## Degrees／Certificates

Transfer Preparation

## Career Opportunities

Engineers are responsible for developing a range of projects and designs from＂simple＂everyday items（cell phones，appliances）to complex （satellites，medical imagery instrumentation）systems．A career in engineering offers many options in disciplines that include Aerospace， Biomedical，Chemical，Civil，Computer，Electrical，Environmental， Industrial，Materials and Mechanical Engineering，plus others．

## Transferability

The Engineering Transfer Program includes the required lower division courses similar to，if not identical to，the same courses offered in the first two years at four year institutions．In general，and unlike most other majors，Engineering Transfer students do not complete all of their General Education courses before transfer．Selection of essential

General Education courses should be determined carefully, with the assistance of a counselor or advisor. Note that most four-year institutions want students to begin as freshmen straight from high school, or as juniors after completing the lower-division equivalent of the first two years of college.

## Engineering Requirements <br> (Transfer Preparation)

## Freshman Year

Chemistry 1A* (General College Chemistry)................................................. 5
Engineering 10 (Introduction to Engineering)..................................................... 2
Engineering 22 (Engineering Design Graphics)............................................. 3
Mathematics 1 (Analytic Geometry and Calculus I)................................... 5
Mathematics 2 (Analytic Geometry and Calculus II)................................. 5
Physics 8A (General Physics I)....................................................................... 5
Physics 8B (General Physics II)....................................................................... 5
Computer Science 1 (Computing Fundamentals I)....................................4-5

Sophomore Year
English 1A (Critical Reading and Composition)............................................ 3
Engineering 35 (Statics)........................................................................................ 3
Engineering 44 (Introduction to Circuit Analysis)........................................ 4
Engineering 46 (Materials of Engineering)........................................................... 3
Mathematics 3 (Multivariable Calculus)....................................................... 5
Mathematics 5 (Differential Equations with
Computer Applications). 3.5

Mathematics7***
(Elementary Linear Algebra with Computer Applications) ................ 3.5
Mathematics 10*** (Discrete Mathematics) ................................................. 4
Physics 8C (General Physics III)...
Physics 8D** (General Physics IV) ................................................................... 3
Speech 1 (Fundamentals of Speech Communication) ................................ 3
*Chemical Engineering and Materials Engineering majors should also take Chemistry 1B
**Physics 8 D may not be required by some universities for specific engineering majors
***Mathematics 7 and 10 may not be required by some universities for specific engineering majors.

## ENGINEERING (ENGR)

## ENGR 10 INTRODUCTION TO ENGINEERING <br> 2 UNITS

Introduction to careers, activities, and topics related to the field of engineering, including computer applications to design and problem solving. Strongly Recommended: Eligibility for English 1A or 52A. 2 hours. Transfer: CSU, UC. *ENGR 10 and 15 combined: max UC credit; one course Degree Applicable, Credit

Grading Option: OP

## ENGR 15 INTRODUCTION TO OPTICAL

 SCIENCE AND ENGINEERING4 UNITS
An introduction to the field of optical science and engineering. Basic concepts of the manipulation of light. Discussion of the opportunities and professional practice in the field including: application of engineering principles, ethics, and responsibilities. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC. *ENGR 10 and 15 combined: max UC credit; one course Degree Applicable, Credit

Grading Option: GR

ENGR 22 ENGINEERING DESIGN GRAPHICS
3 UNITS
Introduction to the engineering-design process and to technical graphic communications tools used by engineers. Conceptual design of products. Development of spatial reasoning skills. Orthographic and axonometric projection-drawing techniques. Tolerance analysis for fabrication. Documentation of designs through engineering working
drawings. Use AutoCAD Computer-Assisted Drawing software as a design tool. Basic CAD 3-Dimensional solid-modeling. Strongly recommended: Mathematics 38 or Mathematics 36 Y and English 1A or English 52A. 2 hours lecture, 3 hours laboratory. Transfer: CSU, UC Degree Applicable, Credit

Grading Option: GR

## ENGR 25 COMPUTATIONAL METHODS FOR ENGINEERS AND SCIENTISTS

3 UNITS
Methodology and techniques for solving engineering/science problems using numerical-analysis computer-application programs MATLAB and EXCEL. Technical computing and visualization using MATLAB software. Examples and applications from appliedmathematics, physical-mechanics, electrical circuits, biology, thermal systems, fluid systems, and other branches of science and engineering. Prerequisite: Mathematics 1 (completed with a grade of " $C$ " or higher). Strongly recommended: Computer Science 7. 2 hours lecture, 3 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: GR

## ENGR 35 STATICS <br> 3 UNITS

Force systems under equilibrium condition, rigid body structures; vector; graphical and algebraic solution of problems. Prerequisite: Physics 8A and Mathematics 2 and Engineering 22 (all completed with a grade of "C" or higher). Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: GR
ENGR 44 INTRODUCTION TO CIRCUIT ANALYSIS 4 UNITS
Analysis of introductory engineering AC and DC circuits. Natural, forced, and complete circuit response. Prerequisite: Physics 8A (completed with a grade of " $C$ " or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: GR

## ENGR 46 MATERIALS OF ENGINEERING

3 UNITS
Application of principles of chemistry and physics to the properties of engineering materials; the relation of microstructure to mechanical, electrical, thermal and corrosion properties of metals; ceramics and polymers. Prerequisites: Physics 8A and Chemistry 1A (both completed with a grade of " C " or higher). 2 hours lecture, 3 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit Grading Option: GR

## ENGLISH

## DEGREE

## About the Program

This degree provides the essential lower-division courses necessary for transfer to English programs at four-year institutions and prepares students for professional and academic careers. In addition, this degree is useful preparation for other liberal arts degrees and will offer students an enriched background toward professional preparation in fields ranging from education to law. Some variation in requirements may exist at a particular four-year college or university; therefore, it is essential that the student also refer to the catalog of the prospective transfer institution and consult a counselor.

A detailed handout explaining elective options and transferability is available from the English department; interested students are advised to ask any counselor or English faculty member for this handout. This handout is also available on the English Department website:
www.laspositascollege.edu/ENG/index.php

## Degrees/Certificates

- Degree:
- AA - English


## Preparatory Reading And Writing

Students should work with a counselor to determine whether their English prerequisite will be English 100A/100B, English 102 or English 104

## AA - English

## Freshman Year

English 1A (Critical Reading and Composition)............................................ 3
Select one of the following courses for 3 units:
English 3 (Composition and Analysis of Literature)
English 4 (Critical Thinking and Writing about Literature).................... 3
English 45 (Studies in Fiction)....................................................................... 3
General Education Courses
Sophomore Year
English 7 (Critical Thinking and Writing across Disciplines)...................... 3
English 20 (Studies in Shakespeare)............................................................... 3
Electives*** 6
General Education Courses

Total units required 60
***Select from the courses below for a minimum of 6 units (courses may not count as both a requirement and an elective):

English 4 (Critical Thinking and Writing about Literature)
English 11 (Introduction to Creative Writing)
English 12 (The Craft of Writing Fiction)
English 13 (The Craft of Writing Poetry)
English 19 (Literary Magazine)
English 32 (U.S. Women's Literature)
English 44 (Literature of the American West)
ESL 24 (Advanced Reading and Composition)
ESL 25 (Advanced Reading and Composition)
ESL 26 (Advanced Editing)
Humanities 1 (Philosophy, the Sciences, Epic Poetry)
Humanities 28 (Classic Myths)
Humanities 35 (Greek Tragedy)
Mass Communications 1
(Journalism: News Writing and Information Gathering)
Mass Communications 2 (Journalism: Investigative News Writing) Mass Communications 3
(Journalism: Magazine and Newspaper Feature Writing)
Speech 2A (Oral Interpretation of Literature I)
Speech 2B (Oral Interpretation of Literature II)
Speech 5 (Readers Theater)
Theater Arts 4 (American Cultures in Theater)
Theater Arts 10 (Introduction to Dramatic Arts)
Theater Arts 11 (Stage to Film)
Theater Arts 12 (Film as Art and Communications)
Theater Arts 14 (Bay Area Theater)

## ENGLISH (ENG)

ENG 1A CRITICAL READING AND COMPOSITION 3 UNITS
Integrated approach to reading, writing, and critical thinking intended to develop ability to read and write complex, college-level prose. Examination of ideas in relation to individual's worldview and contexts from which these ideas arise. Some research required. Prerequisite: English 104 or 105 with a "Pass"; ESL 25 with a "C" or better; equivalent course or appropriate skill level demonstrated through the English assessment process also acceptable. 3 hours lecture, 1 hour laboratory.

AA/AS GE. Transfer: CSU/UC; CSU GE: A2; IGETC: Area 1A<br>Degree Applicable, Credit<br>Grading Option: GR

## ENG 4 CRITICAL THINKING AND WRITING ABOUT LITERATURE

3 UNITS
Develops critical thinking, reading, and writing skills as they apply to the analysis of fiction, poetry and drama; literary criticism; and related non-fiction from diverse cultural sources and perspectives. Emphasis on the techniques and principles of effective written argument as they apply to literature. Some research required. Prerequisite: English 1A (completed with a grade of "C" or higher). 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: A3; IGETC: 1B
Degree Applicable, Credit
Grading Option: GR

## ENG 7 CRITICAL THINKING AND WRITING ACROSS DISCIPLINES

Develops critical thinking, reading, and writing skills as they apply to the textual analysis of primary and secondary book-length works from a range of academic and cultural contexts. Emphasis on the techniques and principles of effective written argument in researchbased writing across disciplines. Prerequisite: English 1A (with a grade of "C" or higher). 3 hours. A/AS GE. Transfer: CSU, UC; CSU GE: A3; IGETC: 1B
Degree Applicable, Credit
Grading Option: GR
ENG 11 INTRODUCTION TO CREATIVE WRITING 3 UNITS
Elements of creative writing, including narrative, verse and dialogue, using materials drawn from individual's own work and selected texts. Strongly recommended: Eligibility for English 1A. 3 hours. AA/AS GE. Transfer: CSU; CSU GE: C2
Degree Applicable, Credit
Grading Option: OP

## ENG 12 THE CRAFT OF WRITING FICTION

3 UNITS
Practice in writing fiction. Developing internal and external sources for stories and novels; biographical sources, characterization, plot, points-of-view, narrative techniques; analysis and criticism of published writing and individual's own work. Strongly recommended: English 11 and Eligibility for English 1A. 3 hours. AA/AS GE. Transfer: CSU; CSU GE: C2. (May be taken 3 times)
Degree Applicable, Credit
Grading Option: GR
ENG 13 THE CRAFT OF WRITING POETRY 3 UNITS
Practice in writing poetry, using materials drawn from published poetry and individual's own work for analysis and criticism, with a focus on techniques of revision. Strongly recommended: English 11 and Eligibility for English 1A. 3 hours. AA/AS GE. Transfer: CSU; CSU GE: C2; (May be taken 3 times)
Degree Applicable, Credit
Grading Option: GR
ENG 19 LITERARY MAGAZINE
2-3 UNITS
Creation of a literary-style student magazine. Practical training in the managing, editing, formatting, and printing of a literary supplement and/or magazine. Enrollment constitutes the staff of the magazine. The number of laboratory units will be agreed upon and scheduled by instructor and student based on the student's job description and availability to participate. English 19 and/or Mass Communications 19 may be taken for a total of four times for credit.* 1 hour lecture and 3 or 6 hours laboratory. Transfer: CSU (May be taken four times*)
Degree Applicable, Credit
Grading Option: OP

## ENG 20 STUDIES IN SHAKESPEARE <br> 3 UNITS

Readings of the sonnets and representative comedies, histories, tragedies, and romances of William Shakespeare, with attention to the early, middle and late phases of his art and to the Age of Elizabeth. Prerequisite: English 1A (completed with a grade of " C " or higher). 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: C2; IGETC: 3B
Degree Applicable, Credit
Grading Option: OP

ENG 32 U.S. WOMEN'S LITERATURE 3 UNITS
Chronicles the expression of U.S. women authors through readings in a variety of genres such as fiction, poetry, drama, and the essay. Study of the works of at least three of the following groups: African Americans, Asian Americans, European Americans, Hispanic Americans, and Native Americans, with a particular focus on the 20th century. Prerequisite: English 1A (completed with a grade of " C " or higher). 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: C2; IGETC: 3B Degree Applicable, Credit

Grading Option: OP
ENG 43 PROFESSIONAL COMMUNICATIONS 4 UNITS
This course is designed to help students develop and refine the written and oral communication skills necessary to communicate effectively in a business environment. This will be accomplished through the planning, composing, and evaluating of written communication; report writing; and oral presentations. Additional focus will be placed on developing interpersonal skills, team participation skills, and professionalism. Students who have completed or are enrolled in Business 43, Computer Networking Technology 43, Computer Information Systems 43, Computer Science 43, or Speech 43 may not receive credit. Strongly recommended: Eligibility for English 1A. 4 hours lecture. Transfer: CSU
Degree Applicable, Credit Grading Option: OP
ENG 44 LITERATURE OF THE AMERICAN WEST 3 UNITS
Critical analysis of the cultural and historical experiences of
diverse people of the American West as expressed in their literatures, including the novel, short story, poetry, autobiography, memoirs, as-told-to-narratives, and secondary works. Exploration of interrelationships among peoples and cultures of the West, considering place and community, gender, and ethnicity as given voice in literature. Study of the works of at least three of the following groups: African Americans, Asian Americans, European Americans, Hispanic Americans, Native Americans. Emphasis upon techniques of critical review of and response to literary works, including gaining understanding of one's identity as a Westerner and an American. Prerequisite: English 1A (completed with a grade of "C" or higher). 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: C2; IGETC: 3B Degree Applicable, Credit

Grading Option: OP

## ENG 45 STUDIES IN FICTION 3 UNITS

Form, development, and cultural insights of the novel and short story; exploration of particular themes or periods as reflected in works of fiction. Prerequisite: English 1A (completed with a grade of "C" or higher). 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: C2; IGETC: 3B (May be taken 4 times)
Degree Applicable, Credit
Grading Option: GR

## Preparatory Reading And Writing

Students should work with a counselor to determine whether their
English prerequisite will be English 100A/100B, English 102 or English 104.

ENG 100A INTEGRATED READING AND WRITING I 4 UNITS
Preparation in English for success in college. Integrates reading, critical thinking, and writing assignments, using materials that present a variety of perspectives from across the curriculum. Strongly recommended: Appropriate skill level demonstrated through the English assessment process. 3 hours lecture, 3 hours laboratory.
Nondegree Applicable, Credit
Grading Option: P/N

## ENG 104 INTEGRATED READING AND WRITING II 4 UNITS

Preparation in English for success in courses across the curriculum. Integrates reading, critical thinking and writing assignments and introduces research and documentation skills. Designed to accommodate students who would benefit from one-on-one support and some small group instruction as they prepare for English

1A. Prerequisite: English 100A with a "Pass," or equivalent course or appropriate skill level demonstrated through the English assessment process. 3 hours lecture, 3 hours laboratory.
Nondegree Applicable, Credit
Grading Option: $\mathrm{P} / \mathrm{N}$

ENG 105 REASONING, READING AND WRITING 4 UNITS
Preparation in English for success in courses across the curriculum. Integrates reading, critical thinking and writing assignments and introduces research and documentation skills. Designed for those requiring one semester of preparation for entering English 1A with a minimum of one-on-one support. Prerequisite: English 100A with a "Pass" or equivalent course or appropriate skill level demonstrated through the English assessment process. 3 hours lecture, 3 hours laboratory. Nondegree Applicable, Credit

Grading Option: GR

## ENGLISH AS A SECOND LANGUAGE (ESL)

## About the Program

The English as a Second Language (ESL) Program provides an opportunity for students whose first language is not English to develop language skills for their personal, professional, and academic lives. Through a six semester sequence of reading \& writing, grammar, and oral communication courses, students learn in lecture classes and attend one hour of lab in the Integrated Learning Center; they read extensively from our Extensive Reading Library collection, use technology to enhance learning, enjoy rich cultural diversity in each class, and learn from intellectually stimulating material.

The advanced level courses are degree applicable and transferable.
The ESL Program provides a secure language foundation to prepare students for professional or academic training in English.

The Las Positas College website links you to resources to learn more about the ESL Program: www.laspositascollege.edu/esl

## ESL 23 COLLEGE GRAMMAR 3 UNITS

This is a one semester advanced grammar course for academic purposes designed to enable students to use linguistic forms accurately, meaningfully and appropriately in both oral and written expression. The course includes 1) verbs in discourse, 2) adverb, adjective, and noun clauses, 3) modals, 4) subjunctive verbs 5) gerunds and infinitives, 6) grammar in discourse. Prerequisites: ESL 120B and 121B (completed with a grade of "C" or higher) or an appropriate skill level demonstrated through the ESL assessment process. Three hours lecture, 1 hour laboratory. Transfer: CSU (May be taken two times) Degree Applicable, Credit

Grading Option: OP
ESL 24 ADVANCED ESL READING AND COMPOSITION 6 UNITS This is the first semester of a one-year advanced reading and writing course for academic purposes. Emphasis is on critical reading techniques and writing expository essays as well as on grammar and vocabulary development. Prerequisites: ESL 120B and 121B (completed with a grade of " $C$ " or higher) or an appropriate skill level demonstrated through the ESL assessment process. 6 hours lecture, 1 hour laboratory. Transfer: CSU, UC*. *ESL 24 \& 25 combined, max UC credit, 8 units (May be taken two times)
Degree Applicable, Credit
Grading Option: OP

## ESL 25 ADVANCED READING AND COMPOSITION 6 UNITS

This is the second semester of a one-year reading and writing course for academic purposes. Emphasis is on critical reading and techniques
of exposition，analysis，and argumentation．Prerequisite：ESL 24 （completed with a grade of＂$C$＂or higher）or an appropriate skill level demonstrated through the ELS assessment process． 6 hours lecture， 1 hour laboratory．Transfer：CSU，UC＊
＊ESL 24 \＆ 25 combined，max UC credit， 8 units（May be taken 2 times） Degree Applicable，Credit

Grading Option：OP

ESL 26 ADVANCED EDITING
3 UNITS
This course is designed to increase students＇awareness of their own use of written language，strengthen their linguistic monitors and give them practice in editing strategies which will enable them to use linguistic forms accurately，meaningfully and appropriately in written expression．Prerequisites：ESL 120B and 121B（completed with a grade of ＂C＂or higher\} or an appropriate skill level demonstrated through the ESL assessment process． 3 hours lecture； 1 hour laboratory． Transfer：CSU（May be taken two times）
Degree Applicable，Credit
Grading Option：OP

ESL 120A INTERMEDIATE GRAMMAR FOR WRITING AND READING I

2 UNITS
This is the first semester of a one－year course in intermediate grammar for academic writing and reading designed to enable students to use linguistic forms accurately，meaningfully and appropriately in written expression．This course focuses on compound and complex sentences， verb tense and form，and modals．This course also emphasizes grammar analysis，detecting and correcting grammatical errors，and self－editing skills．Prerequisite：ESL 130B（completed with a grade of＂C＂or higher） or appropriate skill level demonstrated through the ESL assessment process．Students are advised to enroll concurrently in ESL 120A and 121A． 2 hours lecture， 1 hour laboratory．（May be taken two times） Nondegree Applicable，Credit Grading Option：P／N

## ESL 120B INTERMEDIATE GRAMMAR FOR WRITING AND READING II

2 UNITS
This is the second semester of a one－year course in intermediate grammar for academic writing and reading designed to enable students to use linguistic forms accurately，meaningfully and appropriately in written expression．The course focuses on compound and complex sentences and short paragraphs，overview of the verb tense system in English，verb forms with gerunds and infinitives，verb forms in modifying phrases，and modals．This course also emphasizes analyzing grammar and meaning，detecting and correcting grammatical errors， and self－editing skills．Prerequisite：ESL 120A or appropriate skill level demonstrated through the ESL assessment process．Students are advised to enroll concurrently in ESL 120B and 121B． 2 hours lecture， 0－1 hour laboratory．（May be taken two times）
Nondegree Applicable，Credit
Grading Option：P／N

ESL 121A INTERMEDIATE WRITING AND READING I 6 UNITS This is the first semester of a one－year course in intermediate academic writing and reading．The course is designed to enable students to use and interpret linguistic forms accurately，meaningfully， and appropriately in written expression．Classes will focus on writing sentences，paragraphs and compositions，developing strategies for reading comprehension and flexibility，on interactive reading，and on academic vocabulary development．Students will develop cultural understanding，vocabulary，and fluency through a variety of academic writing and reading tasks．Prerequisite：ESL 131B（completed with a grade of＂$C$＂or higher）or appropriate skill level demonstrated through the ESL assessment process．Students are advised to enroll concurrently in ESL 120A and 121A． 6 hours lecture，0－1 hour laboratory．（May be taken two times）
Nondegree Applicable，Credit
Grading Option：P／N

ESL 121B INTERMEDIATE WRITING AND READING II 6 UNITS
This is the second semester of a one－year course in intermediate academic writing and reading．The course is designed to enable
students to use and interpret linguistic forms accurately，meaningfully， and appropriately in written expression．Classes will focus on writing sentences，paragraphs and compositions，developing strategies for reading comprehension and flexibility，on interactive reading，and academic vocabulary development．Students will develop cultural understanding and fluency through a variety of academic writing and reading tasks， Prerequisite：ESL 121A（completed with a grade of＂C＂or higher）or appropriate skill level demonstrated through the ESL assessment process． Students are advised to enroll concurrently in ESL 120B and 121B． 6 hours lecture， 1 hour laboratory．（May be taken two times）
Nondegree Applicable，Credit
Grading Option：P／N

ESL 123 INTERMEDIATE ORAL COMMUNICATION 2 UNITS
This is an intermediate－level oral communication course．This course will enable students to use linguistic forms accurately，meaningfully and appropriately，emphasizing academic listening and speaking skills： listening and speaking in small groups，listening to short lectures on academic topics，learning academic vocabulary and expressions， making presentations on new topics．Prerequisite：Eligibility for ESL 120A and 121A or an appropriate skill level demonstrated through the ESL assessment process． 2 hours lecture， 1 hour laboratory． （May be taken two times）
Nondegree Applicable，Credit
Grading Option：P／N
ESL 126 PRONUNCIATION OF ENGLISH
2 UNITS
Intensive practice in recognizing and pronouncing the sounds of American English with emphasis on words and phrases：stress， intonation，phrasing，reduction．attention to individual，as well as， group priorities．Prerequisite：Eligibility for ESL 120A and 121A or an appropriate skill level demonstrated through the ESL assessment process． 2 hours lecture， 1 hour laboratory．（May be taken two times） Nondegree Applicable，Credit

Grading Option： $\mathrm{P} / \mathrm{N}$

## ESL 130A BEGINNING GRAMMAR FOR WRITING

 AND READING I2 UNITS
This is the first semester of a one－year course in beginning grammar for academic purposes designed to enable students to identify and use linguistic forms accurately，meaningfully and appropriately in written expression．The course focuses on simple and compound sentences， questions，modifiers，phrases，and verb tenses，especially simple present，simple past，and present progressive．Strongly recommended： appropriate skill level demonstrated through the ESL assessment process．Students are advised to enroll concurrently in ESL 130A，131A， and 133． 2 hours lecture， 1 hour laboratory．（May be taken two times） Nondegree Applicable，Credit

Grading Option：P／N

## ESL 130B BEGINNING GRAMMAR FOR WRITING

 AND READING II2 UNITS
This is the second semester of a one－year course in beginning grammar for academic purposes designed to enable students to identify and use linguistic forms accurately，meaningfully and appropriately in written expression．The course focuses on simple and compound sentences，questions，modals，modifiers，phrases，and verb tenses， especially simple present，past，and future as well as present and past progressive．Prerequisite：ESL 130A（completed with a grade of＂C＂ or higher）or appropriate skill level demonstrated through the ESL assessment process．Students are advised to enroll concurrently in ESL 130B，131B，and 133． 2 hours lecture， 1 hour laboratory．（May be taken two times）
Nondegree Applicable，Credit
Grading Option： $\mathrm{P} / \mathrm{N}$

ESL 131A BEGINNING WRITING AND READING I 6 UNITS
This is the first semester of a one－year course in beginning academic writing and reading．The course is designed to enable students to use and interpret linguistic forms accurately，meaningfully，and appropriately in written expression．Classes will focus on writing simple and compound sentences in short paragraphs，on developing
strategies for increasing reading comprehension and flexibility, on interactive reading, and on developing academic vocabulary. Students will develop cultural understanding and fluency through a variety of writing and reading tasks. Strongly recommended: Appropriate skill level demonstrated through the ESL assessment process. Students are advised to enroll concurrently in ESL 130A, 131A, and 133. 6 hours lecture, 1 hour laboratory. (May be taken two times)
Nondegree Applicable, Credit
Grading Option: $\mathrm{P} / \mathrm{N}$
ESL 131B BEGINNING WRITING AND READING II 6 UNITS
This is the second semester of a one-year course in beginning academic writing and reading. The course is designed to enable students to use and interpret linguistic forms accurately, meaningfully, and appropriately in written expression. Classes will focus on writing simple, compound, and complex sentences in structured paragraphs, on developing strategies for increasing reading comprehension and flexibility, on interactive reading, and on developing academic vocabulary. Students will develop cultural understanding and fluency through a variety of writing and reading tasks. Prerequisite: ESL 131A (completed with a grade of "C" or higher) or appropriate skill level demonstrated through the ESL assessment process. Students are advised to enroll concurrently in ESL 130B, 131B, and 133.6 hours lecture, 1 hour laboratory. (May be taken two times)
Nondegree Applicable, Credit
Grading Option: P/N

## ESL 133 BEGINNING ORAL COMMUNICATION 2 UNITS

This is a beginning oral communication course. This course will enable students to use linguistic forms accurately, meaningfully and appropriately, emphasizing conversational skills: listening and speaking in small groups, using new grammar structures, learning new words and expressions, comprehending and using idiomatic expressions. Strongly Recommended: Appropriate skill level demonstrated through the ESL assessment process. 2 hours lecture, 1 hour laboratory. (May be taken two times) Nondegree Applicable, Credit

Grading Option: P/N

## ENVIRONMENTAL SCIENCE (EVSC)

## About the Program

The Environmental Science program is a science- and math-based multi-disciplinary program focusing on scientific study of the interaction of humans and the natural environment. The core requirements for the Environmental Science major at Las Positas, enhanced by elective studies in Political science, Geology, Humanities, Sociology, and Anthropology, will prepare students to contribute both personally and professionally to the goal of creating a sustainable future.

## Career Opportunities

A vast number of Career opportunities exist for graduates of environmental studies programs including: Agriculture and natural resource engineers, Animal and Planet Scientists, Geoscientists, Marine Biologists, Oceanographers and Marine Scientists, Conservationists, Environmental Compliance Inspectors, Environmental Health Specialists, Environmental Technicians, Fish and Game Wardens and Wildlife Managers, Forestry Management specialists, Horticulturalists, Hydrology scientists and technicians, Park Naturalists, Soil Conservationists, Waste Management Specialists, City Planning, and finally Zoologists and Zookeepers. In addition to the career options listed above, graduates in environmental science
will also find work in business and industry areas not traditionally associated with the environment as the local, national, and global economy adapts their business as usual model to one that includes sustainable practices.

## Transferability

The Associate in Science degree will prepare students to enter upperdivision studies in specialized Environmental Science programs at many local and national universities--among them, the Baccalaureate in Arts and the Baccalaureate in Science in Environmental Sciences at the University of California, Berkeley; the Baccalaureate in Science in Environmental Science at California State University, East Bay; and the Environmental Science and Management program of the University of California, Davis.

## ENVIRONMENTAL STUDIES

\author{

- DEGREE
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## About the Program

The AA Degree program in Environmental Studies is a multi-disciplinary program which provides students the academic foundation for understanding the scientific and technological basis of energy technology, as well as the political, environmental, and economic factors that underlie the energy policy choices, at both the national and global levels, our students will make throughout their professional careers and also as informed citizens. This transferable program provides a well-rounded foundation by featuring a diverse array of classes in the degree pattern from the natural and physical sciences in such associated disciplines as geology, geography, ecology, biology, chemistry, statistics, philosophy, and economics. Students can further expand this foundation by selecting electives from other disciplines such as anthropology and political science.

## Degrees/Certificates

- Degree:
- AA - (Transfer Preparation)


## Career Opportunities

Career opportunities include Environmental Planners, Environmental Consultants, and Greenhouse Gas Emissions Permitting Consultants. Graduates will also have the potential to specialize in related areas such as water ,air, and forestry resource management, finance, energy, and transportation analysis, waste management, low impact construction, and environmental remediation.

## Transferability

All of the program courses are transferable to most 4 year colleges in the state.

## AA - Environmental Studies*

Freshman Year
Biology 31 (Introduction to College Biology)................................................ 4
Chemistry 31 (Introduction to College Chemistry...................................... 4
Geology 1 (Physical Geology)........................................................................ 3
Geography 1 (Introduction to Physical Geography) .................................... 3
Environmental Studies 5 (Energy and Sustainability).................................. 3

General Education courses

## Sophomore Year

Ecology 10 (Humans and the Environment) ................................................. 3
Mathematics 42A (Introduction to Probability and Statistics) or
Mathematics 44 (Statistics and Probability) ......................................... 3-5
Economics 1 (Principles of Microeconomics) ..................................................... 3
Philosophy 2 (Introduction to Philosophy: Ethics)....................................... 3
Electives................................................................................................................. 0-6
Internship
General Education courses

## Electives

Select from the following courses for a minimum of 6 units:
Anthropology 1 (Physical Anthropology)
Anthropology 2 (Introduction to Archaeology:
Prehistory and Culture Growth)
Anthropology 3 (Social and Cultural Anthropology)
Biology 40 (Field Biology)
Geography 15 (Introduction to Geographic Information Systems)
Geology 3 (Historical Geology)
Geology 5 (Environmental Geology: Hazards \& Disasters)
Geology 7 (Environmental Geology: Resources,
Use Impact \& Pollution)
Geology 12 (Introduction to Oceanography)
Humanities 6 (Nature and Culture)
Political Science 7 (Introduction to American Government)
Political Science 12 (Introduction to California State
and Local Government)
Sociology 5 (Global Change)

* Approval by State Chancellor's Office is pending


## ENVIRONMENTAL STUDIES (EVST)

## EVST 5 ENERGY AND SUSTAINABILITY <br> 3 UNITS

Introduction and exploration of Energy production, utilization, management, and the effects on society, and the environment. This course will also compare and contrast current and future renewable and non renewable methods of energy generation, auditing, and conservation. Strongly recommended: Eligibility for English 1A. 3 hours lecture. AA/AS GE. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## FIRE SERVICE TECHNOLOGY

## DEGREE CERTIFICATE

## About the Program

The Fire Service Technology program prepares the student for a career in the Fire Service, through the provision of highly specialized curriculum which involves both cognitive and psychomotor applications of education and training. The necessary knowledge and skills sets of a desired educational background for an opportunity of employment or advancement into several different fire service career paths may be achieved through the successful completion of the different Fire Service Technology courses provided for in the program. The program includes curriculum normally recognized as the Firefighter I Academy, as well as curriculum leading to a variety of certifications often required for recognition for entry or advancement within these different fire service career paths. Some of these certifications include CAL Fire "179 Hour Wildland Firefighter I Basic Academy" Certificate along with the National Wildland Coordinating Group (NWCG) Certificates of S-130 (Firefighting Training), S-131
(Advanced Firefighting Training), and S-190 (Introduction to Wildland Fire Behavior), certifications from the California State Training Institute (CSTI) in "Hazmat First Responder Operations" (HAZMAT FRO) and "Emergency Decon" along with certification in "Incident Command Basic ICS-200" from California State Fire Training and issued through Fire Service Training and Education Programs (FSTEP). Still other curriculum in the program serves as part of the California State Fire Training (CFSTES) "Fire Officer" Certification training series, which provides the student the necessary breadth of Cognitive knowledge and skill sets necessary for recognition as a Certified "Company Officer" in California.

## Degrees/Certificates

- Degree:
- AS - Fire Service Technology
- Certificate of Achievement:
- Fire Service Technology


## Career Opportunities

Career opportunities provided through the Fire Service Technology Program include Volunteer / Reserve Firefighter, Seasonal Wildland Firefighter, Full Time Professional Firefighter, Firefighter / EMT, Firefighter / Paramedic, Fire Inspector or Code Enforcement Officer, Fire Cause and Origin Investigator and State Certified "Fire Officer" which is desired for promotion to a "Company Officer" in most Fire Service Agencies. Students in the Fire Service Technology Program have been very successful in finding employment in the Fire Service as "Professional Firefighters" throughout the United States due to their extensive training and knowledge that they have achieved here in comparison to the local competition of available candidates in many other states.

## Transferability

The Fire Service Technology degree does not include the lower division requirements typical of four year institutions. General education requirements should be selected carefully based on the intended transfer institution. There are a limited number of four year institutions with specific degrees in the fields of Fire Service Technologies and many of them accept the classes from Las Positas for transfer for the degree or as electives

## AS - Fire Service Technology

## Freshman Year

Fire Service Technology 50* (Fire Protection Organization) .................... 3
Fire Service Technology 51* (Fire Service Operations) ..... $\ldots$

Fire Service Technology 52*
(Firefighter Safety and Public Education) $\qquad$
Fire Service Technology 53* (Fire Behavior and Combustion).................. 3
Fire Service Technology 54 (Fire Prevention Technology)........................... . 3
Fire Service Technology 65* (First Responder Hazardous Materials/
Incident Command ICICS 200)
Fire Service Technology 86* (Wildland Firefighter I - Basic)...................... 3
Emergency Medical Services 61* (First Responder/Emergency
Response).. 2.5

Physical Education FSC* (Fire Service Conditioning and Physical Agility Development) ... . 1

General Education Courses ${ }^{\text { }}$

## Sophomore Year

Fire Service Technology 55 (Fire Protection Equipment and Systems).. 3 Fire Service Technology 56 (Fundamentals of Building Construction for Fire Protection).

Emergency Medical Services 81* (EMT Basic) 6.5

Fire Service Technology 90A (Firefighter I Certification Preparation A)....... 2 Fire Service Technology 90B (Firefighter I Certification Preparation B) ....... 2 Fire Service Technology 90C (Firefighter I Certification Preparation C)...... 2 General Education Courses ${ }^{\S}$

Total Units Required .. 60
§ Program-based General Education requirement: Speech 1 (Fundamentals of Speech Communication)
*Required for entry into the Fire Service Technology 90A, 90B, and 90C courses (Fire Fighter I Certification Preparation)

## PE FSC FIRE SERVICE CONDITIONING

1 UNIT
Course is designed to allow students to prepare for the physical demands placed upon Firefighters and will prepare them for entry into a Fire Academy and to pass the desired Nationally Recognized CPAT (Certified Physical Agility Test) required by most Fire Service Agencies across the country for advancement in the Pre-Employment Examination Process.

## Certificate of Achievement Fire Service Technology

Fire Service Technology 50** (Fire Protection Organization) ................... 3
Fire Service Technology 51** (Fire Service Operations)............................ 3
Fire Service Technology 52** (Fire Safety and Public Education)............ 3
Fire Service Technology 53** (Fire Behavior and Combustion ................. 3
Fire Service Technology 54 (Fire Prevention Technology) ......................... 3
Fire Service Technology 55 (Fire Protection Equipment and Systems).. 3
Fire Service Technology 56 (Fundamentals of Building Construction
for Fire Protection)..
..... 3
Emergency Medical Services 61 (Emergency Response).......................... 2.5
Emergency Medical Services 81** EMT 1 (Basic).......................................... 6.5
Electives*................................................................................................................-3
Total Units Required ......................................................................................32-33
*Electives
Select from the following for a minimum of 2 units:
Fire Service Technology 65 (First Responder Hazardous Materials/ Incident Command ICS 200)
Fire Service Technology 74A (Fire Investigation 1A)
Fire Service Technology 86 (Wildland Interface Fire Fighting)
**Fulfills the Fire Fighter I Certification requirements and required for entry into the Fire Service Technology 90A, 90B, and 90C courses (Fire Fighter I Certification Preparation)

## FIRE SERVICE TECHNOLOGY (FST)

Fire Service Technology courses may be scheduled alternating years. Students may be required to take day and evening classes to complete the Associate Degree.

FST 50 FIRE PROTECTION ORGANIZATION 3 UNITS
Introduction to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics. Cultural Diversity, including discrimination and harassment laws and regulation. Course complies with State Board of Fire Services requirements (1999). 3 hours lecture plus a total of 12 hours laboratory for the semester. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

FST 51 FIRE SERVICE OPERATIONS 3 UNITS
Fundamentals of fire department organization, management and resources; fire company organization; resources to control various emergencies; multi-agency coordinating systems; support and regulatory agencies; strategy and tactics applied to structural fire fighting; wildland fire fighting and hazardous material emergencies; and safety conditions to be considered. Prerequisite: Fire Service Technology 50 (completed with a grade of " $C$ " or higher). 3 hours lecture, plus a total of 12 hours laboratory for the semester. Transfer: CSU
Degree Applicable, Credit Grading Option: GR

## FST 52 FIRE FIGHTER SAFETY AND PUBLIC EDUCATION 3 UNITS

 Assessing fire dangers and handling common fire situations in the home and in the work place; risk abatement and personal preparation for unforeseen fire emergencies; roles and responsibilities in educating the public on fire safety. 3 hours.Degree Applicable, Credit
Grading Option: GR

## FST 53 FIRE BEHAVIOR AND COMBUSTION 3 UNITS

Theory and fundamentals of why fires start, spread, and are controlled. An in depth study of fire chemistry and physics fire characteristics of materials, extinguishing agents, and fire control techniques. 3 hours Transfer: CSU
Degree Applicable, Credit
Grading Option: GR
FST 54 FIRE PREVENTION TECHNOLOGY 3 UNITS
Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation and fire safety education. Provides skills necessary for California Fire Service Training and Education System, Certified Firefighter I and Fire Inspector I.
Prerequisite: Fire Service Technology 50 (completed with a grade of " $C$ " or higher). 3 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR
FST 55 FIRE PROTECTION EQUIPEMENT AND SYSTEMS 3 UNITS History and development of the Uniform Fire Code; features, design, and operations of fire alarm systems and smoke detection systems; means and adequacy of required exiting systems. Installation and maintenance of automatic, manual, and other private fire extinguishing equipment, heat and smoke control systems, water or sprinkler supply, water supply for fire protection and portable fire extinguishers. 3 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## FST 56 FUNDAMENTALS OF BUILDING

 CONSTRUCTION FOR FIRE PROTECTION 3 UNITSStudy of the components of building construction that relate to fire/ life safety. Elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at fires/collapse emergencies. Development and evolution of building and fire codes will be studied in relationship to past fire/collapses in residential, commercial, and industrial occupancies. Prerequisite: Fire Service Technology 50 (completed with a grade of "C" or higher). 3 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## FST 65 FIRST RESPONDER HAZARDOUS MATERIALS/

 INCIDENT COMMAND ICS 200
## 3 UNITS

Hazard recognition and identification; incident response safety procedures and decontamination. Response to hazardous materials emergencies. Emphasis on skills and knowledge necessary to protect lives, property, and the environment. Meets the California Specialized Training Institute's requirements for Hazardous Materials

First Responder Operational Awareness and Hazmat First Responder "Decon" Certifications under California Government Code Section 1503. Principles of Incident Command System, basic ICS stricture and common responsibilities. Meets the State Fire Marshall's Office ICS 200 Certification Requirement. Strongly recommended: Fire Service Technology 53. 3 hours lecture, 12 hours total laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: GR

FST 70A BASIC RESCUE PRACTICES
2 UNITS
Fire incident search and evacuation principles. Implementation of auto incident safety, access, first aid, extrication and removal operations. Wildland incident search procedures, knot tying and slope evacuation skills. Simulated automobile incident rescue exercises. Strongly Recommended: Fire Service Technology 90A and 90B (Fire Fighter-1) or active member of paid or volunteer fire department. 2 hours. Transfer: CSU
Degree Applicable, Credit Grading Option: GR

FST 70B ADVANCED RESCUE PRACTICES
2 UNITS
Continuation of skills and knowledge from Fire Service Technology 70A. Application of triage principles. Implementation of multicasualty incident safety, access, first aid, extrication and removal operations. Advanced wildland incident vertical slope lowering and hoisting skills. Structure collapse shoring, debris tunneling and trench collapse patient recovery techniques. Includes simulated structure collapse rescue and incident command exercises. Prerequisite: Fire Service Technology 70A (completed with a grade of "C" or higher). 1 hour lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

FST 71A FIRE COMMAND 1A - COMMAND PRINCIPLES FOR COMPANY OFFICERS
Provides for company officers with information and experience in command and control techniques, Instruction and simulation time pertaining to the initial decision and action processes at a working fire. Topics include the fire officer and their acts of commanding and authority of command, fire behavior, fire ground resources, operations, and management. Prerequisite: Fire Service Technology 65 (completed with a grade of "C" or higher) or ICS 200 Basic ICS - Incident Command System Certification from NIMS - FEMA, FSTEP or NWCG. This is a State of California Fire Marshal, State Fire Training, CFSTES (California State Fire Service Training and Education System) course approved by the California State Fire Board. A certificate will be issued upon successful completion of the course. The course satisfies one of the component requirements for the certification track of Company Officer. 40 total hours for the course. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

FST 71B FIRE COMMAND 1B
2 UNITS
Provides company officers with information and experience in command and control techniques. Emphasis on decision making and appropriate use of resources for the first arriving company officer at hazardous material incidents. Satisfies part of the requirements for the State Fire Officer I Certification. 40 total hours. Transfer: CSU Degree Applicable, Credit

Grading Option: GR
FST 71C FIRE COMMAND 1C-1-ZONE FIRE FIGHTING FOR COMPANY OFFICERS
Designed for Firefighters, Company Officers, and Chief Officers with limited wildland experience. This course is designed around the responsibilities of the Company Officer at a Wildland/urban interface incident. It will bring the structural Company Officer out of the city and into the urban/interface, in other words, from his or her comfort zone into an area that could very well be quite unfamiliar. This is a State of California Fire Marshal, CFSTES (California State Fire Service Training and Education System) course approved by the California State Fire Board. A certificate will be issued by the California State Fire

Marshal, State Fire Training upon successful completion of the course This course satisfies one of the course component requirements for the certification track of Company Officer. This course also meets a component of certification required for CICCS recognition for Strike Team Leader. 40 hours total. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## FST 72 FIRE MANAGEMENT 1 -MANAGEMENT/ SUPERVISION FOR COMPANY OFFICERS 2 UNITS

Designed for Company Officers or for Firefighters preparing for the position of Company Officer. This course prepares or enhances the first line supervisor's ability to supervise subordinates. It introduces key management concepts and practices utilized by Company Officers, and includes discussions about decision making, time management, leadership styles, personnel evaluations, and counseling guidelines. This is a State of California Fire Marshal, State Fire Training, CFSTES (California State Fire Service Training and Education System) course approved by the California State Fire Board. A certificate will be issued by the California State Fire Marshal, State Fire Training upon successful completion of the course This course satisfies one of the course component requirements for the certification track of "Company Officer'. This course also meets or exceeds all Level I and Level II NFPA 1021, Standards for Fire Officer Professional Qualifications that apply to management. 40 total hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## FST 73A FIRE PREVENTION 1A (BRIDGE) - INTRODUCTION TO THE CALIFORNIA FIRE CODE 2 UNITS

This course provides a broad, technical overview of Fire Prevention Codes and Ordinances, Inspection Practices and Key Hazards. The course is designed for Fire Prevention, Suppression, Public Education and Fire Investigation Personnel. This is a State of California Fire Marshal, State Fire Training, CFSTES (California State Fire Service Training and Education System) course approved by the California State Fire Board. A certificate will be issued upon successful completion of the course. The course satisfies one of the component requirements for the certification tracks of Company Officer, Fire Prevention Officer and Public Education Officer. 40 total hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## FST 73B FIRE PREVENTION 1B (BRIDGE) - INSPECTION OF FIRE

 PROTECTION SYSTEMS AND SPECIAL HAZARDS 2 UNITSThis course provides Fire Prevention Professionals with the base knowledge necessary to inspect fire protection systems and special hazards. The course is designed for Fire Prevention, Suppression, Public Education and Fire Investigation Personnel. This is a State of California Fire Marshal, State Fire Training, CFSTES (California State Fire Service Training and Education System) course approved by the California State Fire Board. A certificate will be issued upon successful completion of the course. The course satisfies one of the component requirements for the certification tracks of Company Officer, Fire Prevention Officer and Public Education Officer. Prerequisite: Fire Service Technology 73A (completed with a grade of "C" or higher). 40 total hours. Transfer: CSU Degree Applicable, Credit

Grading Option: GR

## FST 74A FIRE INVESTIGATION 1A

2 UNITS
An introduction into the principles of fire investigation including fire investigation techniques relating to different types of fires. Recognition of arson laws and penalties in California, laws related to scene preservation and evidence collection. Fire origin and cause determination within the fire ground environment. Fire scene documentation requirements. This is a State of California Fire Marshal, CFSTES (California Fire Service Training and Education System) course approved by the California State Fire Board. A certificate will be issued by the California State Fire Marshall, State Fire Training upon successful completion of the course. 2 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## FST 75A FIRE INSTRUCTOR 1A - INSTRUCTIONAL TECHNIQUES, PART 1 <br> 2 UNITS

Methods and techniques to help fire service personnel select, develop, and organize materials for in-service training programs. This is the first of a two-course series, designed for Company Officers and personnel preparing for a Training Officer Position. Topics include: Occupational Analysis, course outline, concepts of learning, levels of instruction, behavioral objectives, lesson-plan development, psychology of learning and instructor evaluation. Student teaching demonstrations are required of all. Prerequisite: Fire Service Technology 50 (completed with a grade of $C$ or higher) or employment in the Fire Service.
This is a State of California Fire Marshal, State Fire Training CFSTES (California State Fire Service Training and Education System) course approved by the California State Fire Board. A certificate will be issued upon successful completion of the course. The course satisfies one of the component requirements for the certification track of Level I Fire Instructor and one of the component requirements for the certification track of Company Officer. 40 total hours. Transfer: CSU Degree Applicable, Credit

Grading Option: GR

## FST 75B FIRE INSTRUCTOR 1B - INSTRUCTIONAL TECHNIQUES, PART 2

2 UNITS
Practice in the development, implementation, and evaluation of in-service training programs. This is the second in a two-course series that is designed for Company Officers and personnel preparing for a Training Officer position. Topics include: Preparing course outlines, establishing levels of instruction, constructing behavioral objectives and lesson plans, developing instructional aids, fundamentals of testing and measurements, test planning, evaluation techniques and tools. Student teaching demonstrations are required of all. Prerequisite: Fire Service Technology 75A - Fire Instructor 1A (completed with a grade of C or higher). This is a State of California Fire Marshal, State Fire Training CFSTES (California State Fire Service Training and Education System) course approved by the California State Fire Board. A certificate will be issued upon successful completion of the course. The course satisfies one of the component requirements for the certification track of Level I Fire Instructor and one of the component requirements for the certification track of Company Officer. 40 total hours. Transfer: CSU Degree Applicable, Credit

Grading Option: GR
FST 86A CAL FIRE BASIC FIREFIGHTER (2010) 5 UNITS
A basic structural and wildland firefighting course oriented toward entry-level employment in agencies responsible for Wildland Fire Mitigation and Interface I-Zone Fire Protection. Emphasis on equipment utilized on CAL FIRE Engines (formerly California Department of Forestry). Meets minimum requirements for seasonal employment with CAL Fire. Course emphasizes demonstration, student application and performance examinations. Fundamentals of wildland fire control and techniques of controlling other emergency incidents covered with a strong safety perspective. Various live fire exercises for application of fire control and suppression techniques. Provides for S130, S131 and S190 equivalency under National Wildfire Coordinating Group (NWCG). Students completing this course, the prerequisite courses, and the CAL Fire "Firefighter Basic Training" Taskbook course meet the 2010 CAL Fire 179 Hour "CAL FIRE Basic Firefighter" certification requirements. Course complies with the State Board of Fire Services Wildland Fire Fighting requirements for Structural Firefighter I Certification. Prerequisites: Fire Service Technology 50 and Fire Service Technology 65 and PE FSC and Emergency Medical Services 61 (all completed with a grade of "C" or higher). 3 hours lecture, 6 hours laboratory. Transfer: CSU
Degree Applicable, Credit Grading Option: GR

FST 90A FIRE FIGHTER-1 CERTIFICATION PREPARATION 2 UNITS
Development of individual skills and basic knowledge necessary to perform the functions of a fire fighter. Practice in donning breathing apparatus, knot tying, placing ladders, pulling hose, making water supply connections and using the incident command system Prerequisite: Fire Service Technology 50, 51, 52, and 53, 65, 86, Health 61 or proof of current completion of an Emergency Medical Technician Program (all courses completed with a grade of "C" or higher). 24 total lecture hours, 40 total hours laboratory.
Degree Applicable, Credit
Grading Option: GR

## FST 90B FIRE FIGHTER-1 CERTIFICATION PREPARATION 2 UNITS

Continuation of skills and basic knowledge necessary to perform the functions of a fire fighter, engineer and captain within a fire attack team. Practice in donning breathing apparatus, knot tying, placing ladders, pulling hose, making water supply connections and using the incident command system. Prerequisite: Fire Service Technology 90A (completed with a grade of " C " or higher). 24 total lecture hours, 40 total hours laboratory.
Degree Applicable, Credit
Grading Option: GR
FST 90C FIRE FIGHTER-1 CERTIFICATION PREPARATION 2 UNITS Continuation of skills and basic knowledge necessary to perform the functions of a fire attack team, in multiple company exercises, which include: hose and ladder evolutions; salvage and overhaul techniques; fire attack, control and extinguishment techniques for various situations. Fire fighter-1 Graduation Certificate awarded upon successful completion. Students with six months paid experience or 12 months volunteer/work experience may apply for the State Certificate, with proof of current completion of a valid Emergency Medical Technician Program. Prerequisite: Fire Service Technology 90B (completed with a grade of " C " or higher). 24 total hours lecture, 40 total hours laboratory.
Degree Applicable, Credit
Grading Option: GR
FST 92 FIRE FIGHTER-II CERTIFICATION PREPARATION 4 UNITS
Manipulative and technical training in fire protection water supply, self-contained breathing apparatus, fire service equipment inspection and maintenance, advanced hose and ladder operations, fire attack and control procedures, and radiological monitoring. Designed to develop the abilities of the employed or volunteer fire fighter to perform the objectives stated in the Fire Fighter II Certification guidelines. Academy Certificate, EMT Certificate. Prerequisite: Fire Service Technology 54, 55, 70B (all completed with Grade of "C" or higher) and proof of eligibility for/or possession of a State of California Fire Fighter I Certificate. May substitute the State Heavy Rescue course and a Vehicle Extrication course for the 70A and 70B requirements. 3.5 hours lecture, 2 hours laboratory.
Degree Applicable, Credit
Grading Option: GR

## FST 95 WORK EXPERIENCE

1-3 UNITS
College supervised on-the-job training while working in a fire service related occupation. Prerequisite: State Fire Fighter I Academy Certificate, EMT Certificate. Corequisite: Fire Service Technology 96. 5-15 hours each week. Transfer: CSU . See page 168 for Work Experience requirements. (May be taken 4 times)
Degree Applicable, Credit
Grading Option: GR

## FST 96 WORK EXPERIENCE SEMINAR

 1 UNITCoordination of curriculum with college supervised part-time or fulltime employment, or volunteer work in the fire service field. Includes case studies, job related problems, cases and presentations, and material related to employment, organization and management; emphasis on building working relationships with supervisors, subordinates, and co-workers. Prerequisite: State Fire Fighter I Academy Certificate, EMT Certificate. Corequisite: Fire Service Technology 95.1 hour. Transfer: CSU. See page 167 for Work Experience requirements. (May be taken 4 times) Degree Applicable, Credit

Grading Option: GR

## FST 200 WILDLAND FIRE FIGHTING－ LIVE FIRE EXERCISE

NON－CREDIT
Wildland Fire Fighting，a live fire exercise，with emphasis on wildland fire behavior and utilization of effective control and suppression techniques． Additional emphasis on ICS organization and applications，weather influence，equipment usage，firing operations，dozer applications，hand tool applications，and firefighter safety associated with a Wildland Fire Incident．Prerequisite：Current membership within a recognized Fire Service Agency． 8 hours total．No limit．
Non－degree Applicable，Non Credit
Grading Option：Non－credit

## FRENCH

## About the Program

The Foreign Language program provides a rigorous and intensive study and practice in French，Italian and Spanish．Basic foreign language learning skills such as listening，speaking，reading，and composition are combined with emphasis on learning about the culture of the people who speak the individual languages．

## FRENCH（FREN）

## FREN 1A BEGINNING FRENCH <br> 5 UNITS

This introductory level course will enable students to begin speaking， reading and writing elementary level French as well as understanding the spoken language．Students are introduced to concepts of grammar， vocabulary and verb tenses in a variety of auditory，visual and written contexts．Strongly Recommended：Eligibility for English 1A． 5 hours． AA／AS GE．Transfer：CSU UC；IGETC：Area 6
Degree Applicable，Credit
Grading Option：OP

## FREN 1B ELEMENTARY FRENCH

This is the second semester of the introductory level course and will enable students to continue to learn to speak，read and write elementary level French as well as to understand the spoken language． Students are introduced to concepts of grammar，vocabulary and verb tenses in a variety of auditory，visual and written contexts．Prerequisite： French 1A（completed with a grade of＂C＂or higher）． 5 hours． AA／AS GE ．Transfer：CSU ，UC
Degree Applicable，Credit
Grading Option：OP

## FREN 2A INTERMEDIATE FRENCH 4 UNITS

Review of grammar；reading of works of modern authors；practice in conversation and composition．Prerequisite：French 1B（completed with grade of＂ C ＂or higher）． 4 hours．AA／AS GE ．Transfer：CSU，UC；CSU GE： C2；IGETC：3B
Degree Applicable，Credit Grading Option：OP

FREN 2B ADVANCED FRENCH
4 UNITS
Reading of French authors；advanced review of grammar，emphasis on speaking and composition．Prerequisite：French 2A（completed with grade of＂C＂or higher）． 4 hours．Transfer：CSU，UC；CSU GE：C2；IGETC：3B Degree Applicable，Credit

Grading Option：OP

# GENERAL STUDIES 

About the Program<br>General Studies are courses based in multiple disciplines designed to contribute to the capacity for students to succeed in college．The offerings in this area are focused on Leadership and Teaching．

## GENERAL STUDIES（GNST）

## GNST 10 FACULTY ASSISTANT EXPERIENCE FOR POTENTIAL TEACHERS <br> 1－2 UNITS

Work as a faculty assistant to gain a variety of experiences related to teaching and learning tasks．May not assist in course sections in which enrolled．Prerequisite：Consent of instructor and Office of Academic Services．2．5－5 hours．（May be taken 4 times）
Degree Applicable，Credit
Grading Option：OP

## GNST 21 INTRODUCTION TO TEAM SELF－MANAGEMENT

2 UNITS
Explores the connections between one＇s purpose and intentions and one＇s behaviors，and develops the self－management skills to successfully attain one＇s goals．Prerequisite：General Studies 10 （comleted with a grade of＂P＂or higher）． 1 hour lecture， 3 hours laboratory．Transfer：CSU
Degree Applicable，Credit
Grading Option：OP

## GNST 25 STUDENT LEADERSHIP

1－2 UNITS
Processes and methods of communication in group situations， including parliamentary procedure，preparation of agenda and minutes， and organization accounting．Introduction to student government procedures and policies．Recommended for members of the Student Government Assembly，club officers，members of college－wide committees and others interested in leadership． 1 hour lecture，2－4 hours laboratory．Transfer：CSU（May be taken 4 times）
Degree Applicable，Credit
Grading Option：OP

## GNST 25L STUDENT GOVERNMENT LEADERSHIP LABORATORY

1－3 UNITS
Practical application of the skills of effective student government leadership．Includes，but is not limited to，conducting and attending meetings，holding office hours，sitting on committees，and planning and attending campus events．Concurrent Enrollment In General Studies 25．3－9 hours laboratory．Transfer：CSU（May be taken 4 times） Degree Applicable，Credit Grading Option：OP

GNST 100 FOUNDATIONS FOR LEARNING SUCCESS 3 UNITS Examine self－efficacy issues and begin to develop strong self－efficacy behaviors．Develop behaviors that lead to academic and career success，such as understanding individual learning styles，building and working in diverse learning style teams，effective and appropriate methods of communication，effective and appropriate behaviors in the classroom and the workplace．Course is based on curriculum used to train executives in large companies to develop professional behaviors． 3 hours lecture．Transfer：CSU
Nondegree Applicable，Credit
Grading Option：P／N

# GEOGRAPHY 

About the Program

Geography is the science of place and space. Geographers ask where things are located on the surface of the earth, why they are located where they are, how places differ from one another, and how people interact with the environment. There are two main branches of geography; human geography and physical geography. Human geography is concerned with the spatial aspects of human existence - how people and their activity are distributed in space, how they use and perceive space, and how they create and sustain the places that make up the earth's surface. Human geographers work in the field of urban and regional planning, transportation, marketing, real estate, tourism and international business. Physical geographers study patterns of weather and climate, landforms, vegetation, soils and water. They forecast the weather, manage land and water resources, and analyze and plan for forests, rangelands, and wetlands.

Many human and physical geographers have skills in cartography and Geographic Information Systems (GIS). Geographers also study the linkages between human activity and natural systems, and are active in the study of global warming, desertification, deforestation, loss of biodiversity, groundwater pollution, and flooding.

## Career Opportunities

Teaching, urban and regional planning, transportation, marketing, real estate, tourism, international business, government.

## Transferability

All of the geography courses are transferable to most 4 year colleges in the state.

## GEOGRAPHY (GEOG)

GEOG 1 INTRODUCTION TO PHYSICAL GEOGRAPHY 3 UNITS Earth's natural environments, with emphasis on spatial characteristics, change over time, interactions between environmental components, and human-environment interactions. Physical processes, techniques, and tools by which Earth's climates, soils, vegetation, water resources, and land forms are linked into integrated global patterns. Effect of natural environments on human activities and how humans modify environments. Field trips may be included. 3 hours. AA/AS GE .
Transfer: CSU, UC; CSU GE: B7; IGETC: Area 5A
Degree Applicable, Credit.
Grading Option: GR

## GEOG IL INTRODUCTION TO PHYSICAL

 GEOGRAPHY LABORATORYApplication of the concepts, techniques, tools, and materials of physical geography. Practical exercises, experiments, observations, data analyses, and computer applications/simulations which augment understanding of geographic processes, interrelationships, spatial patterns and distributions. Use of maps, remotely-sensed imagery, and geographic information systems. Includes locational reference systems, time-space relationships, weather, climate, soils, vegetation, and landforms. Field trips/field projects may be included. Prerequisite: Geography 1 (may be taken concurrently). 3 hours laboratory. AA/AS GE . Transfer: CSU, UC; CSU GE: B1 \& B3; IGETC: 5A \& Lab. Degree Applicable, Credit.

Grading Option: GR

## GEOG 2 CULTURAL GEOGRAPHY 3

3 UNITS
Spatial analysis of human populations, their cultural traits, and activities. Emphasis on how diverse peoples, through their interactions and through their perceptions and use of the physical environment,
create distinctive cultural landscapes. Social, political, and economic elements of geography which contribute to the evolution of these global and regional cultural patterns. Field trips may be included. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: D5; IGETC: 4E Degree Applicable, Credit.

Grading Option: OP
GEOG 5 WORLD REGIONAL GEOGRAPHY 3 UNITS
Regions of the world and the way humans live within those regions. Includes physical and cultural characteristics of world regions, how they are similar and how they are different, economic patterns, agriculture, industrial development and population dynamics. Emphasis on contemporary major issues and their geographic impact. 3 hours. AA/AS GE . Transfer: CSU, UC; CSU GE: D5; IGETC: Area 4 Degree Applicable, Credit.

Grading Option: GR

GEOG 8 INTRODUCTION TO WEATHER AND CLIMATE 3 UNITS Introduction to weather and climate and their impact on and modification by human activities. Emphasis on weather elements, events, and processes; climate controls; and the techniques, tools, and instruments of atmospheric science. Includes atmospheric optics, weather prediction, severe storms, air pollution, global/regional warming/cooling, ozone depletion, acid rain, El Niño, deforestation, desertification, and other topics related to everyday experience and global climate change. Field trips and observational activities may be included. 3 hours. Degree Applicable, Credit.

Grading Option: OP
GEOG 12 GEOGRAPHY OF CALIFORNIA
3 UNITS
California's physical, cultural, and regional elements. The physical geographic base includes: location; geological evolution; geomorphic provinces, natural hazards, and resources; climate, water resources, vegetation, and soils. Historically developed cultural themes include: Native American and Hispanic origins; migration patterns and settlements; population growth and ethnic diversity; land use and economic activities; and Pacific Rim connections. Human-environment interactions and issues are considered throughout. Field trips may be included. 3 hours. AA/AS GE . Transfer: CSU, UC; CSU GE: D5; IGETC: 4E Degree Applicable, Credit.

Grading Option: OP

## GEOG 15 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS (GIS)

3 UNITS
GIS is a geographically-based, computer assisted information technology that captures, organizes, queries, and analyzes spatial relationships between locations and attributes of Earth's physical, cultural, and economic features. GIS facilitates visualization of spatial relationships and decision-making by interactively linking maps, databases, images, and charts. GIS is both a tool for learning across the curriculum and an integrated system and science for solving real-world spatial problems within and across every economic sector. This course introduces entry-level GIS theory, principles, concepts, applications, and operations through a combination of lectures, demonstration, interactive web sessions and tutorials, and active learning strategies. Students will acquire basic hands-on GIS experience with current industry-standard software. Field trips may be required. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: D5
Degree Applicable, Credit.
Grading Option: OP

## GEOG 22 ADVANCED GIS APPLICATIONS

3 UNITS
GIS is a geographically-based, computer assisted information technology that captures, organizes, queries, and analyzes spatial relationships between locations and attributes of Earth's physical, cultural, and economic features. GIS facilitates visualization of spatial relationships and decision-making by interactively linking maps, databases, images, and charts. GIS is both a tool for learning across the curriculum and an integrated system and science for solving real-world spatial problems within and across every economic sector. This course introduces entry-level GIS theory, principles, concepts, applications, and operations through a combination of lectures, demonstration,
interactive web sessions and tutorials, and active learning strategies. Students will acquire basic hands-on GIS experience with current industry-standard software. Field trips may be required. Prerequisite: Geography 15 (completed with a grade of " $C$ " or higher). 3 hours.
Transfer: CSU
Degree Applicable, Credit. Grading Option: GR

## GEOLOGY

## About the Program

Geology is the study of the earth. Areas of study include but are not limited to: volcanoes; earthquakes and seismology; the Geologic Time Scale and the formation of the earth; petrology (rocks) and minerals; hydrology; erosion; oceanography, including beach systems; environmental geology (resources, hazards, etc.); glaciers and Ice Ages; groundwater; and deserts.

The Las Positas College Geology Program features lectures and laboratories for both Geology majors and non-science majors. Lectures and accompanying laboratory courses are offered separately to accommodate students' schedules.

## Career Opportunities

Geology graduates typically work in the field of Environmental Geology (including Resource Development/Management and Natural Hazards/Disasters Assessment and Planning) and/or Geoscience Exploration and Research.

## Transferability

Geology 1/1L, 3/3L, 5, 7 and 12/12L (see below for course descriptions) are transferable and satisfy the Natural/Physical Science GE requirements of most four-year institutions. The Geology course offerings at LPC include the lower-division courses typical of lower division geology requirements of most four year institutions.

For students interested in pursuing a four-year degree in Geology, the first two years of a Geology degree generally consist of: Physical Geology 1 (lecture and laboratory); Historical Geology 3 (lecture and laboratory); Physics, Chemistry, Mathematics, and general breadth requirements. Mineralogy/Earth Materials is also a required lowerdivision Geology course at some four-year schools.

Geology is an applied science. The last two years of the typical fouryear geology program focus on geology courses that apply scientific concepts and principles that the student learned in the first two years. All potential geology majors should consult the current college catalog for geology degree requirements at the school to which the student wishes to transfer.

## GEOLOGY (GEOL)

GEOL 1 PHYSICAL GEOLOGY
3 UNITS
The Earth, its materials, its internal and external processes, and its development through time. Emphasis is placed on a thorough global understanding of Plate Tectonics as a framework and foundation for subsequent geologic topics and concepts. Topics include volcanoes, earthquakes and seismology, the Geologic Time Scale and the formation of the earth, rocks and minerals, hydrology, erosion, beach systems, environmental geology, glaciation, groundwater, etc. Course content includes the difference between theory and fact
and the historical development of key geologic concepts. This is the foundation course for almost all subsequent geology courses for both geology majors and non-majors. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: B1; IGETC: Area 5A
Degree Applicable, Credit
Grading Option: OP
GEOL IL PHYSICAL GEOLOGY LABORATORY 1 UNITS
Laboratory course to supplement the physical geology lecture course. Introduction to the materials and techniques of geology. Includes minerals, rocks, topographic and geologic maps, structural geology, identification and interpretation of landforms, geologic time and relative age dating analysis, etc. Prerequisite: Geology 1 or Geology 5 or Geology 7 (may be taken concurrently). 3 hours laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: B1 \& B3; IGETC: 5A Lab Degree Applicable, Credit

Grading Option: OP
GEOL 3 HISTORICAL GEOLOGY 3 UNITS
Formation and development of the earth, its oceans, atmosphere and life through time. Emphasis on the Geologic Time Scale, the fossil record, introductory biostratigraphy, radiometric dating, index fossils, fossil assemblages, mass extinctions, types of fossil preservation, Ice Ages and glacial events through time, paleogeography: plate tectonic configurations throughout time, major events through the scope of Geologic Time, etc. Prerequisite: Geology 1 or Geology 5 or Geology 7 (completed with a grade of "C" or higher). 3 hours lecture.
AA/AS GE. Transfer: CSU, UC; CSU GE: B1; IGETC: 5A
Degree Applicable, Credit
Grading Option: OP

## GEOL 3L HISTORICAL GEOLOGY LABORATORY <br> 1 UNIT

Laboratory exercises to support and reinforce the Historical Geology lecture course. Includes lab exercises in relative and absolute age-dating, biostratography, radiometric dating, the construction of geologic histories from geologic map data, types of fossil preservation, fossil identification and morphology of the common and important fossils throughout the Geologic Time Scale. Formation and development of the earth, its oceans, atmosphere and life through time. Prerequisite: Geology 3 lecture (may be taken concurrently) 3 hours laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: B1 \& B3; IGETC: 5A Lab
Degree Applicable, Credit Grading Option: OP
GEOL 5 ENVIRONMENTAL GEOLOGY: HAZARDS \& DISASTERS

3 UNITS
Understanding and planning for the effects of natural hazards and disasters on the earth, the ecosystem and human populations. Content covers the basic natural hazard processes, where and why they occur, as well as considerations for environmental land-use planning. Environmental hazards studied include earthquakes, volcanoes, river systems (including floods and dams), landslides, coastal erosion, tsunamis, sinkholes, etc. 3 hours lecture. AA/AS GE. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## GEOL 7 ENVIRONMENTAL GEOLOGY:

 RESOURCES, USE IMPACT \& POLLUTION3 UNITS
Understanding how and where Earth's environmental resources are created and located, and then studying how the resources are accessed and utilized. Topics include rock and mineral resources, energy resources (including fossil fuel and non-fossil fuel resources), water (including rivers, reservoirs, groundwater, etc.), waste disposal (including water and air pollution), global climate changes (including the greenhouse effect), etc. 3 hours lecture. AA/AS GE. Transfer: CSU. Degree Applicable, Credit

Grading Option: OP

GEOL 12 INTRODUCTION TO OCEANOGRAPHY 3 UNITS Introduction to the oceans, the history of oceanic science, instrumentation and exploration; marine geology including plate tectonics and shoreline processes; physical and chemical properties of
sea water; causes and effects of currents, tides, and waves; introduction to the basic types of marine life, the basic marine habitats and ecosystems; distribution of marine resources and the Law of the Sea. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: BT; IGETC: 5A Degree Applicable, Credit

Grading Option: OP

## GEOL 12L INTRODUCTION TO OCEANOGRAPHY

 LABORATORY1 UNIT
Laboratory course to supplement the oceanography lecture course. Introduction to the materials and techniques of oceanic science. Includes sea floor rocks, oceanic geography, bathymetric maps, seismic reflection, seawater physics and chemistry, beach sand, tides, waves, marine life and marine fossils, sea floor spreading rates, etc. Prerequisite: Geology 12 lecture (may be taken concurrently). 3 hours laboratory AA/ AS GE. Transfer: CSU, UC; CSU GE: B1 \& B3; IGETC: 5A Lab Degree Applicable, Credit Grading Option: P/N

## HEALTH

## About the Program

The courses in this program focus on conceptualizing health as a field of science, understanding health research, evaluating health information, and utilizing credible information to impact behaviors and actions. The ultimate vision is for students to integrate knowledge and educational tools to produce effective change and development, resulting in improved health behaviors throughout the lifespan.

## HEALTH (HLTH)

## HLTH 1 INTRODUCTION TO HEALTH

3 UNITS
Physiological, psychological, and social perspectives of health. Emphasis on knowledge, attitudes, and behaviors that will contribute to a healthy individual. 3 hours. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *HLTH 1 and 2 combined: max UC credit, one course.
Degree Applicable, Credit
Grading Option: OP

## HLTH 2 HEALTH ISSUES

2 UNITS
Investigation, analysis, and evaluation of selected contemporary health and ethical issues with the intent of acquiring insight into the health care delivery systems, health attitudes and behavior. Concepts and issues in contemporary health. 2 hours. Transfer: CSU, UC*; CSU GE: E. *HLTH 1 and 2 combined: max UC credit, one course.
Degree Applicable, Credit
Grading Option: OP

## HLTH 3 WOMEN'S HEALTH

3 UNITS
Physiological, psychological, social, cultural, and political influences on women's health. Emphasis on diversity of women's experiences and the factors involved with both population level health outcomes and personal decision-making. Focus on empowerment for primary prevention. 3 hours lecture. AA/AS GE. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

See also: Nutrition; Physical Education

## HEALTH SCIENCE

DEGREE CERTIFICATE

## About the Program

The Health Sciences Department degree and certificate programs are for the entering healthcare professional with an emphasis on patient care theory and clinical practice. The types of careers available to those entering into Health Sciences may include such fields as Pharmacy Technology, Physical Therapy, Nursing, Radiology Technology, Surgical Technology, and Respiratory Therapy, Surgical Technician, Administrative Medical Assistant, Pharmacy Technician, Certified Nursing Assistant and Certified Home Health Aide, Respiratory Therapy, Physical Therapy, Radiologic Technician, and others.

The Health Sciences Program is designed to provide:

- Knowledge of human anatomy, medical terminology, knowledge and skills related to each specific program's requirements
- General knowledge of the role and responsibilities related to the specific discipline in each program
- Knowledge of local, state, and federal laws, regulations, and ethics which govern practice in the specific discipline
- Development of high quality oral and written communication skills, work ethics, customer service skills, and the ability to work in teams


## See also: Surgical Technology (page 154)

## Degrees/Certificates

- Degree:
- AS - Surgical
- Certificates of Achievement:
- Administrative Medical Assistant
- Surgical Technology


## Career Opportunites

Include but are not limited to: front office medical assistant, retail Pharmacy Technician, Certified Nursing Assistant, Surgical Technician, home healthcare provider, Healthcare provider support staff, and healthcare insurance support staff.

## Transferability

Students will find a variety of opportunities to prepare for a baccalaureate majors such as Health Sciences, Nursing, Pharmacology, Allied Health and Public Health degree programs.

## HEALTH SCIENCE (HSCI)

## HSCI 50 ORIENTATION TO HEALTH CARE DELIVERY SYSTEM

2 UNITS
Overview of health professions and health care facilities, the roles of governmental agencies, professional associations, fiscal intermediaries and consumers. Provides a historical background of the health care delivery system and its contemporary practice. 2 hours. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

## HSCI 51A BASIC MEDICAL TERMINOLOGY <br> 4 UNITS

Terminology used typically by the medical profession; explanation of the history of terminology, prefixes, suffixes, and root words, emphasis on spelling, definitions, pronunciation, and an understanding of their meanings; includes medical abbreviations, pharmaceutical terms, terminology utilized in patient records management; introduction to anatomical terms, and terms related to disease processes. 4 hours. Transfer: CSU
Degree Applicable, Credit Grading Option: OP
HSCI 51B DISEASE PROCESS AND ADVANCED MEDICAL TERMINOLOGY

4 UNITS
Introduction to the nature of disease and to the structural and functional changes of diseases as they affect the systems of the body; discussion of causes, symptoms and treatment of disease. Prerequisite: Health 51A. 4 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
HSCI 52 BASIC MEDICAL TERMINOLOGY FOR ALLIED HEALTH

3 UNITS
A basic course in medical terminology designed for students in studying for Allied Health careers such as Surgical Technologist, Paramedic, Pre-nursing, and Radiology Technician. Medical vocabulary with concentration on prefixes, suffixes, and root words. Emphasis on word dissection, definitions as applied to the body systems including the terminology used in surgical procedures. Concepts focus on comprehensive terminology, pronunciation and spelling core. Students who are currently enrolled in or have received credit for Health 52 or Emergency Medical Services 62 may not receive credit. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR
HSCI 55 ORIENTATION TO HEALTH CARE 2 UNITS
Examine physiological, psychological, ethical, social, and public health issues. Introduce the workings of the human body and mind and explore the relationship between health and larger cultural and societal issues. Introduce medical terminology. Review diseases, including causes, symptoms, how they affect the body systems, and treatment options available. Investigate, analyze, and evaluate professional opportunities, educational requirements and personal characteristics with the intent to acquire insight into careers in the allied health field, with specific focus on transfer science, clinical programs (pre-nursing, EMT , surgical technology, medical assisting), and health administrative support. Gain the academic framework and perspective necessary to pursue a career in health sciences, as well as benefit anyone confronting health care issues in today's complex world. 2 hours lecture. AA /AS GE. Transfer: CSU; CSU GE: Area E Degree Applicable, Credit

Grading Option: GR

HSCI 57 ALLIED HEALTH CAREER EXPLORATION 1.5 UNITS Introduction to Allied Health through an exploration of jobs and skills required for those jobs. This orientation to Allied Health is designed to promote self-awareness through career assessments and discussion and interpretation of interests. 1 hour lecture, 1.5 hours laboratory. Degree Applicable, Credit

Grading Option: OP

## HISTORY


#### Abstract

About the Program The History major is designed to help students comprehend the forces that have shaped the United States, as well as other nations around the world. The program fulfills the campus mission to foster growth in its students and in the community. The program offers a wide variety of courses, and all of the units are transferable. Students of history are encouraged to develop critical thinking skills and to learn to write clearly. Both skills will enable students to be successful in their chosen career fields. The discipline of history helps to nurture an informed public and is, therefore, of vital importance to a democratic society. While units in this program are transferable to many institutions, students should consult a counselor for transfer information.


See also: Humanities, Social Science

## HISTORY (HIST)

HIST 1 HISTORY OF WESTERN CIVILIZATION TO 16003 UNITS
Origin and development of civilization in the Mediterranean and its expansion into Europe - the Near East, Greece, Rome the Middle Ages, Renaissance and the Reformation. 3 hours. AA/AS GE. Transfer: CSU,
UC; CSU GE: C2, or D6; IGETC: 4F
Degree Applicable, Credit
Grading Option: GR
HIST 2 HISTORY OF WESTERN CIVILIZATION SINCE 16003 UNITS
History of the Modern Western World; Romanticism and the Industrial Revolution to the present. 3 hours lecture. AA/AS GE. Transfer: CSU,
UC; CSU GE: C2 or D6; IGETC: 4F
Degree Applicable, Credit
Grading Option: GR
HIST 7 U.S. HISTORY THROUGH RECONSTRUCTION 3 UNITS A survey of United States history from its pre-colonial, indigenous origins through the end of Reconstruction. Emphasis on (1) distinctively American patterns of political, economic, social, intellectual, and geographic developments, (2) the interaction amongst and the experiences of diverse racial, ethnic and socioeconomic groups in American History, and (3) the evolution of American institutions and ideals including the U.S. Constitution, representative democratic government, the framework of California state and local government, and the relationship between state/local government and the federal government. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: D6 \& AI; IGETC: 4F \& AI Degree Applicable, Credit

Grading Option: GR
HIST 8 U.S. HISTORY SINCE RECONSTRUCTION 3 UNITS
History of the United States from the post-Civil War period to the present. Emphasis on distinctively American patterns of political, economic, social, intellectual and geographic developments. AA/AS GE. 3 hours lecture. Transfer: CSU, UC; CSU GE: D6 \& AI; IGETC: 4F \& AI Degree Applicable, Credit

Grading Option: GR

## HIST 14 HISTORY AND AMERICAN CULTURES OF CALIFORNIA

3 UNITS
Historical development of California, including Spanish exploration and settlement, the Mexican Revolution and transformation, the American conquest, the Gold Rush and dynamic expansion to the present day. In addition to exploring the political, economic, cultural and social factors affecting the development of California, the course will focus on the roles and interactions of Native Americans, Latino Americans, European Americans and Asian Americans within the larger context of California history. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: D6; IGETC: 4F
Degree Applicable, Credit
Grading Option: OP

# HEALTH AND <br> HUMAN SERVICES 

See Psychology-Counseling

HIST 25 AMERICAN INDIAN HISTORY AND CULTURE 3 UNITS
Historical survey of American Indians in the United States from earliest times to the present day. Emphasis on Indian societies and cultures, Indian relations with predominant cultures, Indian movement for self-preservation, and historical background necessary to understand contemporary problems of the Indians. Emphasis on the Indians of California and the West. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: D6 \& AI; IGETC: 4F \& AI
Degree Applicable, Credit Grading Option: OP

## HIST 28 HISTORY OF AMERICAN WEST

3 UNITS
A history of the trans-Mississippi West of the United States. Emphasis will be placed on Native American history and cultures, European and Anglo-American frontiers, expansion of the United States in the 19th century, and the interaction of Native American, European American, Asian American, African American and Hispanic American peoples, and the significance of the West in American history. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: D6; IGETC: 4F Degree Applicable, Credit Grading Option: OP

## HIST 32 U.S. WOMEN'S HISTORY <br> 3 UNITS

A survey of United States women's history from its indigenous origins through the present. This course emphasizes the interaction and experiences of diverse racial/ethnic groups that include at least three of the following groups: African-Americans, Chicana/Latina Americans, Asian Americans, European Americans, and Native Americans. Special areas of focus include women's role in the political, economic, social, and geographic development of the United States. 3 hours lecture.
Transfer: CSU, UC; CSU GE: D6 \& AI; IGETC: $4 F$ \& AI
Degree Applicable, Credit
Grading Option: OP

## HORTICULTURE

## DEGREE CERTIFICATE

## About the Program

The horticulture curriculum is designed to meet the demand for trained personnel in a broad range of horticultural fields in one of the following concentration areas: landscape planning, installation and maintenance, nursery management and operations, and floristry.

## Degrees/Certificates

- Degree:
- AS - Horticulture
- Certificate of Achievement:
- Horticulture

Having the Certificate demonstrates your proficiency in specified skills. The Associate of Science (AS) Degree is recommended for students who wish to go on to 4-year degrees. The AS includes the Certificate, plus a few more electives and General Education. Students with the AS degree will also have demonstrated a broader educational basis and writing ability that can give them an advantage for promotional opportunities in the future.

The Certificate and AS are available to specialize in 3 areas: Landscape Installation and Maintenance, Nursery Management and Operations, and Floristry.

## Career opportunities

Entry level pay for labor positions range from \$7.50-\$9.00 per
hour. Experienced workers typically earn \$9.00-\$22.00 per hour. Management and supervisory positions have the greatest earnings at $\$ 3,500$ to $\$ 5,500$ per month. Owners/operators of many landscape maintenance businesses earn between $\$ 4,500-\$ 8,500$ per month.

Many residential landscape installation contractors earn between $\$ 150,000-\$ 500,000$ per year, gross income.

Students might work in residential and commercial landscape installation and maintenance; urban tree service; forestry; park, grounds, and golf course maintenance; retail and wholesale nursery operations and management; floristry; plant pest control and horticulture consulting; and residential landscape design.

The Las Positas College website links you to resources to learn more about opportunities in the field of horticulture:
http://www.laspositascollege.edu/HORT/index.php

## Transferability

The Horticulture program fulfills typical lower-division degree requirements typical of four-year institutions. General education requirements should be selected carefully based on the intended transfer institution; and it is essential that the student refer to the catalog of the prospective transfer institution and consult a counselor.

## See also: Viticulture and Winery Technology

## AS - Horticulture

## Freshman Year

Horticulture 50 (Introduction to Horticulture). .....  3
Horticulture 51 (Fall Plant Material Identification).. .....  .3
Horticulture 52 (Spring Plant Material Identification). .....  3
Horticulture 53 (Plant Disease and Pest Control) .....  3
Horticulture Options* ..... 6-7
General Education Courses§
Sophomore Year
Horticulture 54 (Planting Media and Nutrition) .....  2
Horticulture 55 (Horticulture Management and Operations). .....  3
Horticulture 95 (Work Experience). .....  2
Horticulture 96 (Work Experience Seminar) .....  .1
Horticulture Options* ..... 6-7
General Education Courses§Total units required60
§Program-based General Education 3 unit requirement. See a counselor.
*Complete 1 of the 3 Horticulture Concentration Options

## Horticulture Option 1

Landscape Installation and Maintenance... $\qquad$ . .13 units
Horticulture 56 (Arboriculture)
Horticulture 57 (Landscape and Turfgrass Management)
Horticulture 58 (Landscape Construction)
Horticulture 59 (Landscape Design)
Horticulture 60 (Landscape Irrigation Systems)

## Horticulture Option 2

Nursery Management and Operations $\qquad$ .13 units Horticulture 56 (Arboriculture)
Horticulture 57 (Landscape and Turfgrass Management)
Horticulture 59 (Landscape Design)
Horticulture 60 (Landscape Irrigation Systems)
Horticulture 67 (Interior Plantscapes)

## Viticulture and Winery Technology 10 (Introduction to Viticulture)

## Horticulture Option 3

Floristry .................................................................................................. 12 units
Horticulture 64 (Basic Floristry)
Horticulture 65 (Intermediate Floristry)
Horticulture 66 (Advanced Floristry)
Horticulture 67 (Interior Plantscapes)

## Certificate of Achievement Horticulture

Horticulture 50 (Introduction Horticulture) .................................................. 3
Horticulture 51 (Plant Materials I) ................................................................ 3
Horticulture 52 (Plant Materials II ) ............................................................... 3
Horticulture 53 (Plant Disease and Pest Control) ....................................... 3
Horticulture 54 (Planting Media and Nutrition) ........................................ 2
Horticulture 55 (Horticulture Management and Operations) .................. 3
Horticulture Electives*................................................................................... 5
Total units required

## Electives:*

Select any 2 courses from the 3 Horticulture Concentration Options above.

## HORTICULTURE (HORT)

## HORT 50 INTRODUCTION TO HORTICULTURE 3 UNITS

Introduction to general horticulture, ornamental horticulture and landscape gardening. Includes vocational and hobby values of horticulture, history of horticulture, plant structure, function, growth, reproduction, and development. Plant classification, identification, propagation, and nutrition. Soils, water management, climate adaptation, ecology, pest and disease control, propagation, planting, and maintenance. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: OP
HORT 51 FALL PLANT MATERIAL IDENTIFICATION 3 UNITS Identification, landscape and garden use, growth habit, climatic adaptation, ornamental value, maintenance and care of trees, shrubs, vines and other plants adapted to the northern and coastal valleys of California. Prerequisite: Horticulture 50 (may be taken concurrently). 2 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
HORT 52 SPRING PLANT MATERIAL IDENTIFICATION 3 UNITS Identification, landscape and garden use, growth habit, climatic adaptation, ornamental value, maintenance and care of vines, ground covers, flowers, shrublike plants and flowering trees, adapted to the northern and coastal valleys of California. Prerequisite: Horticulture 50 (completed with a grade of " $C$ " or higher). 2 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## HORT 53 PLANT DISEASE AND PEST CONTROL 3 UNITS

Concepts of plant pathology, entomology, and weed science. Identification, symptoms, diagnosis, and control methods of plant diseases, insects, and weed pests. Methods and techniques of disease and pest management, chemical and non-chemical control related to garden, landscape, and other horticulture crops and plants. Disease and pest control materials with emphasis on safe handling, application, and environmental protection. 2 hours lecture, 3 hours laboratory. Transfer: CSU Degree Applicable, Credit Grading Option: OP

## HORT 54 PLANTING MEDIA AND NUTRITION <br> 2 UNITS

Soil classification, formation, and natural characteristics. Physical and chemical properties of soil and effect on plant growth and development. Propagating and planting media, soil substitutes and amendments to
improve and promote plant growth. Methods and materials related to plant, soil, water, and nutrient relationships to enhance plant growth and development. Plant nutrition, essential nutrients required for plant growth and healthy development. Fertilizer materials, origin, use, and application.
Strongly Recommended: Horticulture 50 or instructor's permission. 2 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## HORT 55 HORTICULTURE MANAGEMENT AND OPERATIONS

3 UNITS
Explores many horticulture specializations including management and operations of retail and wholesale nurseries, greenhouse growers, specialized growers of trees, shrubs, flowers, hydroponics growers, vegetable growers, wholesale and retail floristry businesses, other related businesses, and botanical gardens. Emphasis on plant propagation, propagation structures, greenhouses, nursery and floral business management and operations. Employment opportunities in the horticulture industry. Prerequisite: Horticulture 50 (completed with a grade of " C " or higher). 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

## HORT 56 ARBORICULTURE

2 UNITS
Care, maintenance, planting, and pruning of trees, shrubs, and vines. Specific pruning techniques for ornamental trees, fruit trees, shrubs, roses, and other woody plants. Tree preservation, health, growth characteristics, plant selection, planting, irrigation, fertilization, damage repair, cabling, and bracing. Methods and techniques of tree climbing, tree felling, tree removal, work hazards, and safety precautions. 1 hour lecture, 4 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
HORT 57 LANDSCAPE AND TURFGRASS MANAGEMENT 2 UNITS
Principles and practices of landscape and turfgrass management as practiced by horticultural professionals, landscape contractors, and grounds keepers. Preparation, planting, irrigation, fertilization, pruning, and pest control of landscape developments for residential, commercial, public grounds, golf courses, and gardens. 1.5 hours lecture, 1.5 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

HORT 58 LANDSCAPE CONSTRUCTION 3 UNITS
Design, engineering, construction techniques, and installation methods for landscape site development. Cost estimating, bidding, construction materials, methods, equipment, tools, and safety for landscape plan implementation. Contracts, specifications, and legal aspects regarding landscape installation and site development. 3 hours lecture, 1 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
HORT 59 LANDSCAPE DESIGN
3 UNITS
Landscape site planning and landscape architectural design for residential properties, home gardens, and small-scale use areas. Procedures and methods required in the planning and design process; site inventory, site analysis, user group analysis, preparation of site study diagrams, preliminary designs, and master site plans. Theory and principles of design, site layout, landscape elements, and material selection. Sketching, drafting, delineation, reproduction, and coloring techniques for landscape architectural plans. Selection and use of drawing tools, materials and equipment. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
HORT 60 LANDSCAPE IRRIGATION SYSTEMS
Planning, design, engineering, construction, and maintenance of sprinkler and drip irrigation systems for landscape, garden, and turfgrass use. Principles of hydraulics, layout, and equipment application. Irrigation system equipment, components, methods of
installation and repair. Principles and techniques of water conservation and plant-water-soil relations. 2.5 hours lecture, 1.5 hours laboratory.
Transfer: CSU
Degree Applicable, Credit Grading Option: OP

HORT62 CALIFORNIA NATIVE AND DRY LANDSCAPES 2 UNITS
This course examines the native plant communities of California and identifies native plants suitable for the design and installation of dry landscapes in Northern California. The focus of this course is the planning, design, installation, care, and maintenance of drought tolerant landscapes, with the goal of creating more sustainable landscapes. 1.5 hours lecture, 1.5 hours laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: OP
HORT 63 SUSTAINABLE LANDSCAPE
2 UNITS
This course examines the impact of constructed landscapes on the postindustrial society. Natural ecosystems are studied in order to learn concepts essential to create and maintain sustainable, environmentally sound landscapes. The focus of this course is on planning, designing, installing, and maintaining of landscapes, through the use of ecologically sound construction techniques, materials, and systems. 2 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
HORT 64 BASIC FLORISTRY
3 UNITS
Overview of floral design history and theory. Construction of beginning level floral design styles. Care and conditioning of cut flowers appropriate to beginning designs. Materials, products, and containers used in the floral industry. Introduction to Japanese floral design. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## HORT 65 INTERMEDIATE FLORISTRY

3 UNITS
An intermediate level course of study which explores the basic styles and variations of Western design. Continuation of study emphasizing modern marketability and European styles, techniques, and philosophy. Emphasis on speed and proficiency. Wiring and taping techniques used in corsages and hairpieces; marketability. Introduction of dried and everlasting designs and methodology. Prerequisite: Horticulture 64 (completed with grade " $C$ " or higher) or equivalent. 2.5 hours lecture, 1.5 hours laboratory Transfer: CSU
Degree Applicable, Credit Grading Option: OP

HORT 66 ADVANCED FLORI STRY
3 UNITS
Continuation of knowledge and skills developed in Horticulture 65 in floral design styles covering a number of contemporary styles. Emphasis on holiday and seasonal designs, wedding designs and consultations, and funeral designs. Further study of retail aspects and customer relations. Development of personal style. Prerequisite: Horticulture 65 (completed with grade "C" or higher) or equivalent. 2.5 hours lecture, 1.5 hours laboratory.Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

HORT 67 INTERIOR PLANTSCAPES
3 UNITS
Identification, use, propagation, growth, environmental adaptation, ornamental value, and care of container, indoor, and house plants. 2.5 hours lecture, 1.5 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
HORT 68 ORCHARD AND VEGETABLE GARDENING 1 UNITS This course examines ways that we can better utilize our landscape resources by using them as a source of food production. Principles of commercial and home orchards will be studied, as well as methods of incorporating edible materials into otherwise ornamental landscapes. Students will learn how to plant, care for and harvest a variety of smallscale fruit, berry, and vegetable crops. This course is designed to benefit
retail nursery and garden center professionals, as well as horticultural hobbyists, and home gardeners. 0.5 lecture hour and 1.5 laboratory hour. Transfer: CSU
Degree Applicable, Credit Grading Option: OP

HORT 81 HOME LANDSCAPE DESIGN
2 UNITS
Planning and design of residential landscape and garden areas.
Considerations and techniques for designing outdoor areas around the home. Landscape planning techniques and concepts of design. Use area design, layout, plant selection, and drawing plans. 1.5 hours lecture, 1.5 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## HORT 95 WORK EXPERIENCE

1-3 UNITS
Application of principles and skills through participation in on-the-job training. Prerequisite: Horticulture 50. Corequisite: Horticulture 96 and 5-15 hours of work experience per week. Transfer: CSU* See page 164 for Work Experience requirements. *HORT 95 and HORT 96 combined, maximum transfer credit, 6 units.
Degree Applicable, Credit
Grading Option: OP
HORT 96 WORK EXPERIENCE SEMINAR
1 UNIT
Discussion and analysis of work-experience related problems Discussion of job opportunities in horticulture. Co-requisite: Horticulture 95. 1 hour. Transfer: CSU* See page 164 for Work Experience requirements. *HORT 95 and HORT 96 combined, maximum transfer credit, 6 units. Degree Applicable, Credit

Grading Option: OP

HORT 99 SPECIAL TOPICS IN HORTICULTURE
.3-3 UNITS
Designed to explore special interest subjects drawn from the field of horticulture. Emphasis will be on topics of practical use to home gardeners as well as for persons employed in horticultural industries. Typical subjects include pruning; vegetable gardening; irrigation and pest disease control .3-9 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## HUMANITIES

## D DEGREE

## About the Program

Humanities is an interdisciplinary academic field which encourages its scholar/practitioners to interpret the world and their active role in it through a philosophical, creative and artistic immersion in a number of different but overlapping and connected fields of study. Work in the Humanities also suggests a practical professional methodology combining hermeneutics and a "dialogue-reflection-action change" process that allows students to create new or expanded world-view paradigms resulting in personal and systemic growth and change.

## Degrees/Certificates

- Degree:
- AA - Humanities (General)


## Transferability

This degree prepares those interested in Interdisciplinary Studies, Humanities or Classical Studies/Philosophy majors for successful transfer to four-year institutions. Some variation in requirements may exist at a particular four-year transfer institution; therefore, it is essential that students refer to the catalog of the prospective transfer

# INDUSTRIAL TECHNOLOGY - INTERIOR DESIGN 

institution and consult a counselor. General Education courses should be carefully selected to meet the requirements of the intended transfer institution; some transfer institutions require more General Education units than required by this AA degree.

See also: Philosophy, Religious Studies

## AA - Humanities (General)

## Freshman Year

Humanities 1 (Philosophy, The Sciences, Epic Poetry....................................... 3 Humanities 3 (Film, Drama, Music, Visual Arts, Lyric Poetry).................... 3 Anthropology 5 (Cultures of the U.S. in Global Perspective)................... 3 Philosophy 4 (Introduction to Philosophy: Theory of Knowledge)........ 3
Humanities 10 (The American Style) ............................................................. 3
Religious Studies 1 (Religions of the World) ................................................. 3
Art 4 (Art History: Ancient)............................................................................ 3
General Education Courses
Sophomore Year
Humanities 28 (The Classic Myths) 3

History 1 (History of Western Civilization to 1600) ................................... 3
History 2 (History of Western Civilization since 1600).............................. 3
Art 5 (Art History: Renaissance to Modern) .................................................. 3
General Education Courses
Total units required

## HUMANITIES (HUMN)

## HUMN 3 FILM, DRAMA, MUSIC, VISUAL ART,

 LYRIC POETRY3 UNITS
Dramatic literature, the theater including filmic art, an introduction into the experience and appreciation of works of musical and visual art and lyric poetry. 3 hours. AA /AS GE. Transfer: CSU , UC; CSU
GE: C2; IGETC: 3B
Degree Applicable, Credit Grading Option: GR

## HUMN 6 NATURE AND CULTURE

3 UNITS
An examination of the aesthetic value of the natural environment leading to the development of an individual critical aesthetic of the natural world. Studies in visual art, including painting, photography, sculpture, land art, mixed media, film, literature, and music. 3 hours lecture. AA/AS GE. Transfer: CSU
Degree Applicable, Credit Grading Option: GR
HUMN 7 CONTEMPORARY HUMANITIES
3 UNITS
Visual, literary, and musical works of art that reflect the issues and concepts of the twentieth and twenty-first centuries. A perspective through exploration of chosen works. 3 hours lecture. AA/AS GE. Transfer: CSU, UC Degree Applicable, Credit

Grading Option: OP
HUMN 10 THE AMERICAN STYLE
Humanities of the United States. Major works of literature, painting, sculpture, architecture, films, music, philosophy, science, religion and political and social institutions. Particular attention to values and meanings that reflect the American cultural experience. 3 hours. AA/AS GE. Transfer: CSU , UC; CSU GE: C2; IGETC: Area 3B Degree Applicable, Credit

Grading Option: OP

## HUMN 28 THE CLASSIC MYTHS 3 UNITS

Introduction to mythic themes recurring in literature, the visual arts, and music; gods, humans, heroes; their origins, variations, historical development, and full expression in classical times and continued presence in the arts. 3 hours. AA /AS GE. Transfer: CSU , UC; CSU GE: C2; IGETC: Area 3B

Degree Applicable, Credit
Grading Option: OP
HUMN 44 NARRATIVE FILM MUSIC
3 UNITS
An examination of the function of music in cinema. A discovery of the contributions of classical, popular, and folk composers to the art of film-making and the influence of film music on the general culture of our time. 3 hours. AA /AS GE. Transfer: CSU , UC; CSU GE: C2; IGETC: Area 3B
Degree Applicable, Credit Grading Option: OP

## INDEPENDENT STUDY

## NDEPENDENT STUDY <br> 0.5-2 UNITS

Independent Study courses are open to all students and employ many combinations of media and educational techniques to create individualized, self-pacing education. Up to 18 units may be counted toward graduation. Check with the Counseling Center, Building 700, concerning transferability of Independent Study courses to four-year institutions. Independent Study may also be contracted through an instructor for research, field experience, or skill development. Independent Study may be offered under any subject area contained in the Catalog using the number 29. Transfer: CSU; UC credit may be granted only after review of course outline by specific UC campus after transfer.
Degree Applicable, Credit Grading Option: OP

## INDUSTRIAL TECHNOLOGY

INDUSTRIAL TECHNOLOGY (INDT)

## INDT 61 MANUFACTURING PROCESSES <br> 2 UNITS

Examination of machine shop, welding and general manufacturing processes; practice in the use of hand tools, basic machine tools and welding equipment; understanding the relationship between manufacturing processes and design. 1 hour lecture, 3 hours laboratory Transfer: CSU
Degree Applicable, Credit Grading Option: OP

INDT 74 MEASUREMENTS AND CALCULATIONS 3 UNITS
Calculator techniques for whole number and decimal arithmetic problem solving, fraction-decimal conversion, percentages, ratio and proportion, algebra, geometry, areas and volumes, English metric conversion, and numerical trigonometry as applied in the industry 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## INTERIOR DESIGN

## DEGREE CERTIFICATE

## About the Program

The Interior Design program prepares individuals for entrylevel positions in the field of Interior Design. Most employment opportunities are in established interior design firms or in the retail
or wholesale areas of interior furnishing and accessories. Designed for direct job entry, courses in the program provide knowledge in the specifics of interior design, as well as general education to provide a breadth of knowledge suitable for living in today's society. Work experience or internships are required

## Degrees/Certificates

- Degree:
- AS - Interior Design
- Certificate of Achievement
- Interior Design

Transferability<br>While units in the program are transferable to many institutions, students should consult a counselor for information.

AS - Interior Design

Freshman Year

Interior Design 51 (Drafting for Interior Design)............................................. 3

Interior Design 52 (History of Interiors and Furnishings)............................ 3

Interior Design 54 (Principles of Interior Design)......................................... 3

Interior Design 55 (Introduction to Textiles) ................................................. 3

Speech 1* (Fundamentals of Speech Communication).............................. 3

General Education Courses

Sophomore Year
Interior Design 50 (Residential Space Planning)............................................ 3
Interior Design 56 (Professional Practices).................................................... 3
Interior Design 58 (Fundamentals of Lighting).................................................... 3
Interior Design 60 (Materials and Resources)............................................... 3
Interior Design 61 (Computer Aided Design for Interior Design).............. 3
Visual Communications 51 (Color for Digital Design)................................ 2
General Education Courses
*Program-based General Education requirement: Speech 1

Total units required.
Recommended Electives:
Interior Design 62
Art 10
Art 11
Marketing 61

## Certificate of Achievement Interior Design

Interior Design 51 (Drafting for Interior Design) 3
Interior Design 52 (History of Interiors and Furnishings) .....  3
Interior Design 54 (Principles of Interior Design). .....  3
Interior Design 55 (Introduction to Textiles) .....  3
Interior Design 56 (Professional Practices). .....  3
Interior Design 58 (Fundamentals of Lighting). .....  3
Interior Design 60 (Materials and Resources) .....  3
Interior Design 61 (Computer Aided Design for Interior Design). .....  3
Visual Communications 51 (Color for Digital Design). .....  2
Electives .....  6
Total units required. .....  32

Select from the following for a minimum of 6 units:
Interior Design 50
Interior Design 62
Art 10
Art 11
Marketing 61
Business 52

Internship 1
Internship 2

## INTERIOR DESIGN (INTD)

## INTD 50 RESIDENTIAL SPACE PLANNING 3 UNITS

Basic techniques in planning space for interiors. Private and group living spaces, support systems, functional planning of interior space, and color in space planning. 2 hours lecture, 3 hours laboratory.
Transfer: CSU
Degree Applicable, Credit Grading Option: GR

## INTD 51 DRAFTING FOR INTERIOR DESIGN <br> 3 UNITS

Provides a working knowledge of tools and techniques for interior architectural drafting. Emphasis on lettering, dimensioning floor plans, elevation and sections. Also, covers procedures for developing finished presentational drawings and boards. 2 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit Grading Option: OP

INTD 52 HISTORY OF INTERIORS AND FURNISHINGS 3 UNITS
A survey of the history of interiors and furnishings from Egyptian period to the present. Emphasis on furniture styles and ornamentation. 3 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR
INTD 54 PRINCIPLES OF INTERIOR DESIGN 3 UNITS
Elements and principles of design as they apply to interior design. Emphasis on the use of color and texture in the selection of home furnishings. 2 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit Grading Option: GR

## INTD 55 INTRODUCTION TO TEXTILES

3 UNITS
Introduction to textiles in the apparel and home furnishing market. Includes identification structure, and properties of fibers and yarns. Consideration of fabric design, both structural and decorative, fabric performance, labeling, and legal regulations covering textiles and apparel. 3 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## INTD 56 PROFESSIONAL PRACTICES

3 UNITS
Interior design practices including business and marketing aspects, wholesale resource development, design presentation and career preparation, contractual obligations. 3 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: GR

## INTD 58 FUNDAMENTALS OF LIGHTING

3 UNITS
Residential and commercial lighting systems as they apply to what constitutes a well-lit interior space. Includes an investigation of current lighting fixtures and lighting resources. 3 hours. Transfer: CSU Degree Applicable, Credit

Grading Option: OP
INTD 60 MATERIALS AND RESOURCES
3 UNITS
Survey of residential and commercial interior furnishings with attention to product knowledge of furniture, textiles, ceramics, glass, metals, plastics and composite materials. Skills needed to perform related activities. Strongly Recommended: Interior Design 55.
3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## INTD 61 COMPUTER AIDED DESIGN FOR

 INTERIOR DESIGN3 UNITS
Introduction to basic techniques in computer aided design for interior design, with emphasis on user terminology and hands-on learning. How to set up drawings, dimensioning systems appropriate to architecture. Floor plans, details, drawings and other techniques using the computer. 2 hours lecture, 3 hours laboratory. Transfer: CSU

## INTD 62 KITCHEN AND BATHROOM DESIGN <br> 3 UNITS

Survey of the field of kitchen and bathroom designs. Includes resources, materials, trends, costs and needs, both functional and aesthetic. Strongly recommended: Interior Design 50 and Interior Design 51.. 2 hours lecture, 3 hours laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

# INTERNATIONAL STUDIES <br> - DEGREE <br> For more information, see a counselor. 

## About the Program

The International Studies major is based upon the idea that the past 20 years have seen a series of significant changes in some of the fundamental ways in which nations have traditionally dealt with one another. There has been a shift away from the older politics of conflict and competition toward the recognition that economic and developmental strategies require international planning and management. Nations are beginning to realize that their destinies are mingled in a way and to a degree that is unprecedented.

The major is designed to expose students to this new environment. This curriculum consists of four options: (1) Business Studies, (2) Asian Studies, (3) Latin American Studies, and (4) General Studies. This degree prepares students for transfer to four-year institutions for continued studies. This program fulfills typical lower-division requirements at four-year transfer institutions. Some variation in requirements may exist at a particular four-year college or university; therefore, it is essential that the student also refer to the catalog of the prospective transfer institution and consult a counselor.

## Degrees/Certificates

- Degree:
- AA - International Studies


## AA - International Studies

Freshman YearForeign Language* 5
Anthropology 3 (Social and Cultural Anthropology). .....  3
Options* ..... 0-18
General Education Courses
Sophomore Year
Foreign Language** ..... 5
Geography 2 (Cultural Geography). ..... 3
Political Science 30 (International Relations) .....  3
Options* ..... 0-18
General Education CoursesTotal units required.60
*Complete one of the 4 International Studies Options for a total of 18 units:
**Select from Foreign Languages in LPC Catalog: French, page 109; Italian, page 120; Spanish, page 152.

## 1. Business Option

Business 1A/1B (Principles of Accounting)
Business 18 (Business Law)
Computer Information Systems 50 (Introduction to Computing and Information Technology)
Business 20 (International Business)
Business 30 (Business Ethics and Society)
Business 40 (Business Concepts)
Economics 1 (Principles of Economics: Microeconomics) and/or Economics 2 (Principles of Economics: Macroeconomics) Speech 1 (Fundamentals of Speech)
2. Asian Studies Option:

Anthropology 5 (Cultures of the U.S. in Global Perspective)
Political Science 20 (Comparative Government)
Religious Studies 1 (Religions of the World)
Economics 1 (Principles of Microeconomics) or
Economics 2 (Principles of Macroeconomics)
Speech 1 (Fundamentals of Speech)

## 3. Latin American Studies Option:

History 22 (Introduction to Mexican-American History and Culture) Spanish 2AB (Intermediate and Advanced Spanish)
Anthropology 5 (Cultures of the U.S. in Global Perspective)
Economics 1 (Principles of Microeconomics) or
Economics 2 (Principles of Macroeconomics)
Political Science 20 (Comparative Government)
Speech 1 (Fundamentals of Speech)
4. General Studies Option:

2nd Year of Foreign Language
Anthropology 5 (Cultures of the U.S. in Global Perspective)
Economics 1 (Principles of Microeconomics) or
Economics 2 (Principles of Macroeconomics)
Business 20 (International Business)
Business 40 (Business Concepts)
Political Science 20 (Comparative Government)
Speech 1 (Fundamentals of Speech)

## INTERNSHIPS

## About the Program

Internship opportunities are available through Las Positas College. Interested students who meet qualifications are placed in carefully structured work environments with local employers. Internships provide opportunities to apply knowledge gained in the classroom in a real-world setting and can be an important part of career development for students. Students must be concurrently enrolled in the Internship Seminar course. Placements are contingent upon the availability of an appropriate internship site, employer criteria and student qualifications, and are at the discretion of the employer. Students and employers should contact the Work-Based Learning Coordinator at 925.424.5856.

## INTERNSHIP (INTN)

INTN 1 INTERNSHIP SEMINAR
1 UNITS
Taken in conjunction with Internship Field Placement, this seminar
examines issues related to work and professional development, in the students' chosen course of study (major). The seminar provides the context to reflect on concrete experiences at the internship site, and link these experiences to previously acquired discipline specific, classroom based knowledge. Corequisite: Internship 2. Transfer: CSU (May be taken 2 times each discipline)
Degree Applicable, Credit
Grading Option: OP

INTN 2 INTERNSHIP FIELD PLACEMENT
1-3 UNITS
Taken in conjunction with the Internship Seminar, the field placement is supervised employment for students who work in a job that is related to their chosen course of study. The placement allows for the application of discipline specific knowledge, skills and abilities gained in the classroom. Units earned are based on hours worked during the semester. Transfer: CSU (May be taken 2 times each discipline)
Degree Applicable, Credit
Grading Option: OP

## ITALIAN

## About the Program

The Foreign Language program provides a rigorous and intensive study and practice in French, Italian and Spanish. Basic foreign language learning skills such as listening, speaking, reading, and composition are combined with emphasis on learning about the culture of the people who speak the individual languages.

## ITALIAN (ITLN)

## ITLN 1A BEGINNING ITALIAN

5 UNITS
This introductory level course will enable students to begin speaking, reading and writing elementary level Italian as well as understanding the spoken language. Students are introduced to concepts of grammar, vocabulary and verb tenses in a variety of auditory, visual and written contexts. Strongly recommended: Eligibility for English 1A. 5 hours. AA/ AS GE . Transfer: CSU, UC; IGETC: Area 6
Degree Applicable, Credit
Grading Option: OP
ITLN 1B ELEMENTARY ITALIAN
5 UNITS
This is the second semester of the introductory level course and will enable students to continue learning to speak, read and write elementary level Italian as well as to understand the spoken language. Students are introduced to concepts of grammar, vocabulary and verb tenses in a variety of auditory, visual and written contexts. Prerequisite: Italian 1A (completed with a grade of " C " or higher) or equivalent. 5 hours. AA/AS GE . Transfer: CSU, UC
Degree Applicable, Credit Grading Option: OP

## JOURNALISM

See Mass Communications, page 132.

# KINESIOLOGY <br> DEGREE 

## About the Program

Kinesiology is the scientific study of human movement and physical activity. Kinesiology draws upon anatomy, physiology, physics, psychology, and sociology to understand how humans move, what motivates human movement, and the physiological and psychological benefits of physical movement. The field of Kinesiology includes a variety of subfields including exercise physiology, biomechanics, motor control and motor learning, exercise psychology, and the sociocultural study of movement.

A lack of adequate physical activity negatively impacts the physiological and psychological state of humans. Las Positas College therefore offers a variety of physical activity classes to complement students' academic pursuits.

## Athletics

Las Positas College offers an Intercollegiate Athletics program dedicated to assisting each student in achieving the highest possible academic and athletic success. Our faculty and coaches subscribe to the philosophy that athletics plays an integral role in the total educational process and that athletics helps to promote the growth of values in leadership, character, sportsmanship, and teamwork.

## Degrees/Certificates

- AS - Kinesiology *
- AS - Kinesiology (emphasis in Pre-Therapeutic Studies)* *pending approval


## Transferability

The program provides preparation for transfer, fulfilling typical lower division requirement for most four-year institutions. Some variations in requirements do exist at particular institutions and for particular Kinesiology options; therefore, it is essential that the student also refer to the catalog of the prospective transfer institution and consult a counselor.

## AS - Kinesiology (general transfer preparation)

Core Courses:
Kinesiolog 30: Introduction to Kinesiology
Biology 31: Introduction to College Biology
Anatomy 1: General Human Anatomy
Chemistry 30A: Introductory and Applied Chemistry
Physiology 1: Human Physiology
Math 42A or 44: Statistics
Nutrition 1: $\quad$ Nutrition
Nutrition 5: $\quad$ Nutrition for Performance \&Sport
Kinesiology 17: Introduction to Athletic Training
Kinesiology 15 : First Aid and Safety
Kinesiology Activity Courses - one course from each of 4 areas

## AS - Kinesiology <br> (Pre-Physical Therapy / Therapeutic Studies transfer preparation)

Core Courses:
Kinesiology 30: Introduction to Kinesiology
Zoology 1: General Zoology
Biology 1: General Biology
Botany 1: General Botany
Chemistry 1A: General College Chemistry
Chemistry 1B: General College Chemistry
Anatomy 1: General Human Anatomy
Physiology 1: Human Physiology
Physics 2A: Introduction to Physics I
Physics 2B: Introduction to Physics II
Kinesiology Activity Courses - one course from each of 4 areas

## KINESIOLOGY (KIN)

## KIN AAQE ADAPTIVE AQUATIC EXERCISE

.5-2 UNITS
This class is an opportunity for students with disabilities to improve muscle strength and endurance through exercises done in shallow water. The pool allows minimal joint stress while doing range of motion and strengthening exercises. This class is designed for students with limitations that are directly related to their verified physical or mental disabilities. Exercises will be adapted to the individual's needs and disability. Students must have a current clearance from their doctor to participate in this class. 27-108 hours laboratory per semester. (Students with verified disability may petition to take this course for credit beyond the four times stated) AA/AS GE. Transfer: CSU, UC*; CSU GE: E *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit Grading Option: OP
KIN AQA AQUA AEROBICS
.5-2 UNITS
Student will participate in a variety of upright exercises in the shallow and deep water of a pool. Water specific movements, which take advantage of the unique characteristics of water, will help students improve cardio-respiratory endurance, muscle endurance/strength, flexibility and body composition, while minimizing impact on the body. Students need not be swimmers to participate in this class; however students must feel comfortable in the water. 27-105 hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E; *Max UC credit, 4 units of KIN activity courses (May be taken four times) Credit, Degree Applicable

Grading Option: OP

## KIN AQJD AQUA JOGGING - DEEP WATER

.5-2 UNITS
Students will participate in a conditioning program in the deep water of a pool. A variety of low impact movements, centered on jogging, will be performed while utilizing an Aqua Jogger buoyancy belt. Students will improve cardio-respiratory endurance, muscle endurance/strength and flexibility. Students must feel comfortable in the water. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit Grading Option: OP
KIN ASA AEROBICS/STEP AEROBICS
.5-2 UNITS
Designed to emphasize cardiovascular endurance through a combination of aerobics and step aerobics. Students will use equipment including the step, hand weights, tubing and mats to improve all components of fitness (cardiovascular endurance, muscular strength and endurance, flexibility and body composition) through correct and safe application of sound exercise principles. 27-108 laboratory hours per semester. AA/ AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## KIN AB AEROBIC FITNESS

.5-2 UNITS
Aerobic Fitness is an intermediate conditioning class that emphasizes cardiovascular endurance activities through a variety of exercises that stimulate heart and lung activity. Interval calisthenics are used as a warm-up, and then activities that develop increased aerobic efficiency will be performed by the students. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## KIN AWT ADAPTED WEIGHT TRAINING <br> 0.5-2 UNITS

An opportunity for students with disabilities to improve muscle strength and endurance through the correct application of sound training principles. This class is designed for students with limitations that are directly related to their verified physical or mental disability. Students must have a current clearance from their doctor to participate in this class. An individual exercise program will be developed by the instructor and student to meet the student's goals. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE:Area E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times for credit. Students with verified disability may petition to take this course for credit beyond the 4 times stated) Degree Applicable, Credit

Grading Option: OP

## KIN BA BALLET

.5-2 UNITS
Develop and practice basic techniques in ballet. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## KIN BC BOOT CAMP

.5-2 UNITS
Improve core conditioning, muscle strength, muscle endurance and cardio-respiratory endurance through a variety of drills and military style movements. Functional training delivered in an intense environment. 27-108 laboratory hours per semester. AA/AS GE.
Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
KIN BD BADMINTON .5-2 UNITS
Basic fundamentals of badminton including the forehand, backhand and serve. Includes singles and doubles strategy. Open to all levels of skill. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit Grading Option: OP

## KIN BRD BALLROOM DANCE

.5-2 UNITS
An introductory course in ballroom dancing. Students will study, analyze, practice and develop social dance technique, proficiency and etiquette in the fundamentals of ballroom dancing. Typical dances covered include: waltz, samba, rumba, foxtrot, tango, rock-n-roll,, and east coast swing. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit Grading Option: OP

## KIN BK BASKETBALL

.5-2 UNITS
This multi-level course is designed to provide the student with an opportunity to development the basic skills and understanding of basketball. Skills such as dribbling, passing, shooting, defensive and offensive strategies will be presented and practiced. Team play and sportsmanship are important priorities that are emphasized in this class. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## KIN BKL BASKETBALL LEAGUE

.5-2 UNITS
This multi-level course is designed to provide the student with an opportunity to develop the basic skills and understanding of basketball. Skills such as dribbling, passing, shooting, defensive and offensive strategies will be presented and practiced in a team setting. Team play and sportsmanship are important priorities that are emphasized in this class. 27-108 hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

KIN BKP BASKETBALL ADVANCED PLAY
.5-2 UNITS
This course is designed to provide the student with an opportunity to develop the skills and understanding of basketball at the advanced level. Skills such as dribbling, passing, shooting, defensive and offensive strategies will be presented and practiced. Team play and sportsmanship are important priorities that are emphasized in this class. Strongly recommended: KIN BK-Basketball. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses(May be taken 4 times)
Degree Applicable, Credit Grading Option: OP

## KIN BL

BOWLING
.5-2 UNITS
This course is designed to give the student the opportunity to learn the basic skills, terminology, and etiquette of bowling and be able to participate in a league-type bowling program using off-campus bowling centers. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

KIN BRD BALLROOM DANCE
.5-2 UNITS
An introductory course in ballroom dancing. Students will study, analyze, practice and develop social dance technique, proficiency and etiquette in the fundamentals of ballroom dancing. Typical dances covered include: waltz, samba, rumba, foxtrot, tango, rock-n-roll, and east coast swing. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
KIN BX BOX AEROBICS
.5-2 UNITS
Course is designed to give the student an opportunity to experience a combination of martial arts and aerobic exercise for the benefit of physical fitness. Exercises will include jumping rope, push-ups, abdominal work, cardiovascular exercise, strength training and toning exercises, box aerobics drills and stretching. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

KIN CL CHEERLEADING
.5-2 UNITS
A combination of motions, cheers, chants, basic stunts, dance moves and routines designed to increase individual athletic ability and provide an opportunity for participation in a team activity. Includes cardio-respiratory endurance and tones major muscle groups to increase level of fitness. 27-108 laboratory hours. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max credit, 4 transfer units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
KIN CP CARDIO POWER
.5-2 UNITS
A group exercise class that uses various formats including Step, Interval, $\mathrm{Hi} /$ Low aerobics, Circuit, and Boot Camp to improve all components of fitness (cardiovascular endurance, muscular strength and endurance, flexibility and body composition). 27-108 hours laboratory per semester.

AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
KIN CSVB COURT SPORTS VOLLEYBALL BASKETBALL .5-2 UNITS
This course is designed to provide students an opportunity to practice those skills which are acceptable under current rules and interpretations in the games of volleyball and badminton. An equal number of hours and/ or class sessions will be dedicated to the introduction of the rules, basic skills, and the offensive/defensive strategies involved with the selected court sports of volleyball and badminton. 1.5 to 6 hours. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

KIN CW INTERMEDIATE/COMPETITIVE WALKING .5-2 UNITS
This course is designed as a training program for individuals interested in increasing their walking speed. There will be five off-campus training sessions or competitive walking events during the semester. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

KIN DBS DANCE AEROBICS/BODY SCULPTING .5-2 UNITS
A combination of energizing aerobic dance and specific resistance training. Improves cardio-respiratory endurance and tones major muscle groups. $27-108$ hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 transfer units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## KIN DE DANCE EXERCISE

.5-2 UNITS
A vigorous choreographed movement class performed to music; may include either high or low impact or step aerobics, or a combination of both. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
KIN DRJ DANZAN RYU JUJITSU
.5-2 UNITS
A blend of traditional Japanese martial art schools which emphasize balance, position, timing, and the principle of minimum effort for maximum effect. The techniques are not strength based and primarily involve the use of joint and nerve manipulation, precision striking, and leverage to subdue an attacker. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## KIN DS DISC SPORTS

0.5-2 UNITS

This introductory course will provide students with instruction on the various sport activities associated with the flying disc. The class contains units on basic throws and catches, along with instruction and participation in sports of: Double Disc Court, Disc Golf, Freestyle competition, and Ultimate. 1.5 to 6 hours. AA/AS GE. Transfer: CSU,
UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
KIN DT DANCE TECHNIQUES
.5-2 UNITS
Dance warm-up exercises followed by combinations including elements of jazz, ballet, and modern dance forms. 27-108 hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## KIN FB EPEE BEGINNING

.5-2 UNITS
This course provides a comprehensive introduction to the sport of fencing. Emphasis is on the technical and tactical skills unique to epee. Basic skills include the development of correct footwork, precise blade action, and sound tactical decisions. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## KIN FC FITNESS CENTER

.5-2 UNITS
Students will be presented instruction on how to development and maintain the components of fitness: muscular strength, muscular endurance, cardiovascular endurance, flexibility and body composition. Students will learn how to design an individualized exercise program based on sound training principles and personal goals. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## KIN FD FITNESS DEVELOPMENT

.5-2 UNITS
Introduction to the components of fitness development. Students will be presented instruction on how to maintain and development the components of fitness: muscular strength, muscular endurance, cardiovascular endurance, flexibility and balance. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: P/N

## KIN FFL FIT FOR LIFE-FIFTY PLUS

.5-2 UNITS
Using elements of dance, low-impact aerobics, and exercises for strength and flexibility, this course is designed to increase and maintain stamina and the overall fitness level in the mature adult. This course is designed for beginning students with emphasis placed on stretches and self-help exercises such as warm-up and cool down for aerobics and strengthening. $27-108$ hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## KIN FNB FENCING BEGINNING

.5-2 UNITS
This course provides a comprehensive introduction to the sport of fencing. Emphasis is on the technical and tactical skills unique to epee. Basic skills include the development of correct footwork, precise blade action, and sound tactical decisions. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## KIN FNI FENCING INTERMEDIATE

.5-2 UNITS
This course continues to develop the skills specific to foil and epee fencing. Emphasis is placed on the further development of technical and tactical skills unique to each weapon. The electrical equipment will be used exclusively. 27-108 laboratory hours per semester. AA/ AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

KIN FL FLAG FOOTBALL
.5-2 UNITS
This course is designed to give the student an opportunity to review and practice the basic fundamental skills relative to the game of flag football. (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

KIN FS FUTSAL .5-2 UNITS
Students will learn, practice and play Futsal, which is a derivative of soccer and played with five-man teams on a basketball-style court with no walls and a low bouncing ball. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit Grading Option: OP

## KIN FSC FIRE SERVICE CONDITIONING AND PHYSICAL AGILITY DEVELOPMENT <br> 1 UNIT

Introduction to the components of physical fitness development and conditioning, with emphasis on preparing students for the physical agility performance and testing standards required of "Emergency First Responder" Candidates entering into Police or Fire Academies. Instruction on proper warm-up and stretching techniques, how to develop and maintain the components of fitness through increased muscular strength and muscular endurance, cardiovascular endurance and recovery, and increased flexibility and balance. Introduction to Circuit Training; skills instruction on various testing parameters of the Nationally approved and recognized Certified Physical Agility Test (CPAT); instruction on various "Tools of the Trade" (i.e., Ladders, Fire Hose, Self Contained Breathing Apparatus (SCBA) for developing proper skills in handling, lifting and carrying techniques as well as developing cardio-respiratory control and aerobic conditioning while wearing a SCBA under conditions of physical exertion. 3 hours laboratory per week or 54 hours laboratory per semester. AA/AS GE. Transfer: CSU; CSU GE: Area E; (May be taken 4 times)
Degree Applicable, Credit
Grading Option: GR

## KIN FW FITNESS WALKING

.5-2 UNITS
This course provides a cardiovascular activity that will benefit anyone, regardless of age or fitness level. Individualized walking programs are designed to promote general overall fitness. Walking speed and power will be improved through the practice of effective and technically correct movement patterns. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

KIN GBW GUTS AND BUTTS WORKOUT
.5-2 UNITS
Reduce, shape, tone and strengthen the abdominal region, the buttocks and thighs through a series of exercises. This course will focus on improving muscle strength and endurance for the abdominals, gluteals, quadriceps, and hamstrings. Emphasis will be on functional development of muscle strength and endurance and core stability. 27-108 hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

KIN GF GOLF
.5-2 UNITS
Introduction to the skills of golf at the local driving range with the optional choice to complete a local 9-hole executive course as well as an 18 -hole course of their choosing. Course is designed for the beginner, although intermediate and advanced players are welcome and encouraged to enroll. Emphasis is on rules, etiquette, safety, skills, course management, and strategies for club selection. 27-108 hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## KIN GSR GENTLE STRETCH/RELAXATION

.5-2 UNITS
This course is designed to present to the student a selection of stretching and strengthening exercises to promote strength, flexibility, balance, and coordination in a relaxing atmosphere. Through consistent practice, the student will improve in strength and become aware of improved breathing patterns and methods of relaxation. AA/ AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## KIN HHA HIP HOP AEROBICS

.5-2 UNITS
A vigorous, choreographed movement class performed to hip hop/ club music. Will include low and high impact aerobics. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## KIN ID INTRODUCTION TO DANCE

.5-2 UNITS
Introduction to the distinct movements and techniques characteristic of ballet, modern dance, and jazz dance. $27-108$ hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## KIN JDB JAZZ DANCE BEGINNING

.5-2 UNITS
Practice in basic jazz dance techniques and routines. 27-108 laboratory hours per semester.AA/AS GE. Transfer: CSU, UC*; CSU GE: E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

KIN JDI JAZZ DANCE INTERMEDIATE
.5-2 UNITS
Practice in intermediate jazz dance techniques and routines. This course builds on the content introduced in Jazz Dance Beginning. Strongly recommended: KIN JDB-Jazz Dance Beginning. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

KIN JW JOG/WALK
.5-2 UNITS
Jogging or walking efforts will be improved through consistent practice and training. This course provides a cardiovascular activity that will benefit anyone, regardless of age or fitness level. Individualized programs will be designed to promote general overall fitness. AA/ AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
KIN LDF LINE DANCE FITNESS
.5-2 UNITS
Fitness through line dancing to promote and maintain physical fitness. A variety of dances focus on rhythm, timing, choreography and coordination to improve muscle tone, strength and endurance. No partner required. $27-108$ hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
KIN LDFI LINE DANCE FITNESS - INTERMEDIATE .5-2 UNITS Intermediate level line dances that focus on rhythm, timing, balance and coordination to improve muscle tone, strength and endurance. Line dance styling and technique to promote and maintain physical fitness. No partner required. Strongly recommended: KIN LDF Line Dance Fitness. 27-108 hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
KIN LG LIFEGUARDING
1.5 UNITS

This course is designed to provide the students with the knowledge and skills to prevent, recognize and respond to emergencies and to provide care for injuries and sudden illness until emergency medical services arrive and take over. Upon successful completion of the Lifeguarding course requirements and exams, students will earn American Red Cross certificates. The Lifeguarding/First Aid certificates are valid for three (3) years, and the CPR/AED portion is valid for one (1) year. The student must be 15 years of age on or before the final scheduled session of the course. Strongly recommended: Physical Education SWF (Swimming for Fitness) or Physical Education

SWA (Advanced Swimming). 1 hour lecture, 1.5 hours laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP

KIN PM PILATES MATWORK
.5-2 UNITS
Introduction to the guiding principles of Pilates. Students will be presented instruction on how to implement the guiding principles of Pilates to increase core strength, flexibility and balance. 27-108 hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## KIN RC ROCK CLIMBING

.5-2 UNITS
Introduction to the components of rock climbing based on the principles of the Climbing Gym Association. Students will be presented instruction on how to maintain and develop the components of fitness: muscular strength, muscular endurance, cardiovascular endurance, flexibility and balance through rock climbing. 27-108 hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit Grading Option: OP

KIN SB SOFTBALL
.5-2 UNITS
Introduction and participation in the skills and conditioning needed to participate in the sport of slow pitch softball. 2 AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

KIN SC SOCCER - OUTDOOR
.5-2 UNITS
Students will practice the skills of kicking, passing, trapping and heading necessary for controlled outdoor soccer play; discuss and employ basic offensive and defensive strategies and tactics; put into practice the rules governing outdoor soccer play. 27-108 hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

## KIN SCF STEP CARDIO FITNESS

.5-2 UNITS
A high energy aerobic class utilizing a step platform for variety of movements and intensity. Students will use equipment including the step, hand weights, tubing and mats to improve all components of fitness (cardiovascular endurance, muscular strength and endurance, flexibility and body composition) through correct and safe application of sound exercise principles. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken four times) Degree Applicable, Credit

Grading Option: OP

KIN SD
SALSA DANCE
.5-2 UNITS
An introductory course in salsa music and the dance that expresses its rhythms. Salsa draws influences from a number of types of music, cultures and dances; It has roots in many music and dance styles including Afro-Cuban, Mambo, Cumbia, Charanga, Rhumba, and Tango. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP
KIN SI SOCCER - INDOOR
.5-2 UNITS
Students will practice the skills of kicking, passing, trapping and heading necessary for controlled indoor soccer play; discuss and employ basic offensive and defensive strategies and tactics; and put into practice the rules governing indoor soccer play. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

KIN SS SKI/SNOWBOARD CONDITIONING
. 5 UNIT
Introduction to the conditioning and development of fitness specifically geared to individuals preparing for skiing, snow boarding, cross country skiing, and other snow related activities. 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 transfer units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP
KIN SWA SWIMMING ADVANCED
2 UNITS
This is an advanced course designed to enhance the overall knowledge and fitness for the advanced swimmer. The emphasis will be on training for competition (Intercollegiate, High School, Open Water, Triathlon, USA Swimming, and Recreational League). Instruction will also include refining the competitive strokes, starts, and turns. Strongly recommended: Physical Education SWBI (Beginning/Intermediate Swimming) or Physical Education SWF (Swimming for Fitness). 6 hours laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP
KIN SWB SWIMMING - BEGINNING
.5-2 UNITS
An introductory course designed to teach fundamental swimming skills. Emphasis will be on developing proper swimming techniques, including non-competitive and competitive swim strokes (freestyle, side-stroke, backstroke, breaststroke, and butterfly). Students will also learn aquatics safety methods and the fundamentals of starts and turns. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 transfer units of KIN activity courses (May be taken four times) Degree Applicable, Credit

Grading Option: OP

KIN SWBI BEGINNING/INTERMEDIATE SWIMMING .5-2 UNITS An introductory course designed to teach the basic fundamentals, stroke techniques, and safety skills. For Beginning Swimming, the emphasis will be on developing proper swimming techniques, including non-competitive and competitive swim strokes (freestyle, sidestroke, backstroke, breaststroke, and butterfly). Intermediate Swimming instruction includes refining the competitive strokes, introduction of the Individual Medley, starts and turns. Students will also learn aquatics safety methods. Strongly recommended: KIN Learn to Swim (KIN LTS). 27-108 laboratory hours per semester. AA/AS GE. Transfer: CSU (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

## KIN SWF SWIMMING FOR FITNESS

.5-2 UNITS
Students will practice the skills of kicking, passing, trapping and heading necessary for controlled outdoor soccer play; discuss and employ basic offensive and defensive strategies and tactics; put into practice the rules governing outdoor soccer play. 27-108 hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

KIN SWL LEARN TO SWIM
.5-1 UNIT
An introductory course designed to teach fundamental swimming skills and is designed for non-swimmers who cannot swim one length of the pool ( 25 yards). Emphasis will be on the physical and psychological adjustment to the water as well as basic swimming stroke techniques. Students will also learn aquatics safety methods. 27-54 laboratory hours per semester. AA/AS GE. Transfer: CSU (May be taken four times) Degree Applicable, Credit

Grading Option: OP

## KIN TCC TAI CHI CHUAN

.5-2 UNITS
A Chinese health practice which combines exercise and meditation with an emphasis on breathing and relaxation. Its gentle, flowing movements can nourish and energize the body, producing optimal health and well-
being. 2 AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

## KIN TK TAE KWAN DO .5-2 UNITS

A form of martial arts that originated in Korea over 4,000 years ago. It is both a hard and a soft style of karate which uses mostly kicks, and some use of hands and other body parts, such as head and elbows. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

## KIN TS TEAM SPORTS <br> .5-2 UNITS

Introduction to rules, skills, and strategies involved with selected team sports (e.g., flag football, softball, ultimate, soccer, etc.). Two to four sports will be selected for the course and are listed in the Class Schedule. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. * Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

## KIN TN TENNIS <br> .5-2 UNITS

Basic fundamentals of tennis including the forehand, backhand, and serve. Includes singles and doubles strategy. Open to all levels of skills. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

## KIN TCT TRAINING AND CONDITIONING FOR TRACK AND FIELD <br> 5-2 UNITS

Introduces students to the study and principles of track and field. Class will include strategies, participation, drills and activities related to training and conditioning for intercollegiate track, field, and cross country. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times) Degree Applicable, Credit

Grading Option: OP
KIN TT TABLE TENNIS
.5-2 UNITS
Introduction to the skills of table tennis. Course is designed for the beginner, although intermediate and advanced players are welcome and encouraged to enroll. Emphasis is on rules, etiquette, safety, skills, paddle selection, equipment maintenance, and strategies for service, service return, and volley play. An important aim of the class will be to create and promote interest in table tennis as a leisure time activity. 27-108 hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

KIN TTT TABLE TENNIS TOURNAMENT .5-2 UNITS
Course is designed for the intermediate and advanced players with emphasis on Offensive and Defensive strategies for tournament play. Rules, etiquette, safety, skills, paddle selection, equipment maintenance, and strategies for service, service return, and volley play will be reviewed. An important aim of the class will be to create and promote interest in table tennis as a competitive activity. 27-108 hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times) Degree Applicable, Credit

Grading Option: OP
KIN UF ULTIMATE
.5-2 UNITS
Introduction and participation in the skills and conditioning needed to participate in the sport of ultimate Frisbee. AA/AS GE. Transfer: CSU, UC*; CSU GE: E. *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

## KIN VB VOLLEYBALL

.5-2 UNITS
This course is designed to provide students an opportunity to learn and practice those skills which are acceptable under current rules and interpretations in the game of volleyball. Open to all skill levels AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

KIN WMB WELLNESS AND MOVING BODY
.5-2 UNITS
This course provides a unique combination of dance and mind-body awareness principles. Emphasis is on achieving proper body alignment, muscular strength, core stability, and flexibility. This course is designed to increase the overall fitness level in the mature adult. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

## KIN WP WATER POLO

1 UNIT
This course is designed to give the student the opportunity to learn and practice the game of Water Polo. The focus of the class will be on individual and team skills relating to the play of Water Polo, rules and regulations, acceptable conduct, and fitness. Instruction will also include strategy and appreciation for competition. Strongly recommended: Physical Education SWBI (Beginning/Intermediate Swimming) or Physical Education SWF (Swimming for Fitness) or Physical Education SWA (Swimming Advanced). 3 hours laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: E; *Max UC credit, 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

KIN WT WEIGHT TRAINING
.5-2 UNITS
An opportunity for the student to improve muscle strength and endurance through the correct application of sound training principles. Students will be presented instruction on how to maintain and develop the components of fitness: muscular strength, muscular endurance, cardiovascular endurance, flexibility and balance. Basic wellness components including nutrition, stress management, healthy lifestyles, body composition, and rest will also be discussed. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

KIN WTW WEIGHT TRAINING FOR WOMEN
.5-2 UNITS
An opportunity for the female student to improve strength and endurance through the correct application of sound training principles. Students will be presented instruction on how to develop and maintain the components of fitness: muscular strength, muscular endurance, cardiovascular endurance, flexibility, and body composition. Students will learn how to safety and effectively strength-train the female body. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

KIN YO YOGA
.5-2 UNITS
This course provides a unique exercise system based on the principles of Hatha Yoga. Emphasis is on developing a controlled awareness of inner strength, body alignment, balance, and flexibility through a series of exercises and poses. The importance of controlled breathing and mental relaxation is also emphasized. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

KIN YOF YOGA FITNESS
.5-2 UNITS
This course provides a unique combination of yoga and fitness principles. Emphasis is on developing muscle endurance, muscle strength, body alignment, balance, flexibility, and core stability through
a series of exercises and poses. AA/AS GE. Transfer: CSU, UC*; CSU GE: Area E; *Max UC credit, 4 units of KIN activity courses (May be taken four times)
Degree Applicable, Credit Grading Option: OP

## KIN 4 PERSONAL FITNESS <br> 1 UNIT

An independent, self paced, personal activity program planned and implemented in conjunction with student goals. Based on goals and results of a fitness assessment and health risk appraisal, an individualized program is developed through personal counseling. Programs can include a physical assessment profile, a health risk appraisal, an individualized exercise/activity program, nutrition counseling, health/wellness education, and behavior modification. The student is required to meet with the instructor on campus at the beginning and end of the semester. 9 hours lecture and 27 hours laboratory per semester. AA/AS GE. Transfer: CSU, UC*; *Max UC credit, 4 units of KIN activity courses (May be taken four times) Degree Applicable, Credit Grading Option: OP

## KINESIOLOGY THEORY COURSES

KIN 16 THE SUCCESSFUL STUDENT ATHLETE 1 UNIT
This course is designed to assist the student-athlete in developing realistic expectations and goals of college, explore academic programs, and understand what is necessary to succeed in college while competing in an intercollegiate sport. The rules and regulations of the Commission on Athletics (COA), National Collegiate Athletic Association (NCAA), and the National Association of Intercollegiate Athletics (NAIA) will be defined and explored to bring awareness to the student-athlete regarding eligibility and transferring to a four-year institution. 1 hour lecture. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP

KIN 17 INTRODUCTION TO ATHLETIC TRAINING 3 UNITS
Basic taping skills, introduction to modality usage, and basic rehabilitation principles of athletic training. Designed to be preparatory for further education and a career in athletic training. May include work with intercollegiate sports programs. 2 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 3 times)
Degree Applicable, Credit
Grading Option: OP
KIN 18 ATHLETIC TRAINING PRACTICUM 2 UNITS
Introduces students to basic care, prevention, treatment and rehabilitation of athletic injuries. This class will include work with intercollegiate athletes, high school athletes and a limited exposure with patients at Valley Care Health facility. This class is designed for majors and non-majors alike. It is strongly recommended that the student be able to lift and perform physical activities. 1 hour lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
KIN 20 INTRODUCTION TO PHYSICAL EDUCATION 3 UNITS
Survey of Physical Education with emphasis on basic elements, foundations, specialty areas of further study, career opportunities and the relationship of Physical Education to other fields. This course will broaden student's understanding of how the philosophies and programs of physical education, exercise and sport have evolved to their current status. 3 hours. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

## KIN 21 THEORY OF SOCCER

2 UNITS
The examination and analysis of theories and strategies in international soccer. This course includes examination of offensive and defensive strategies, and playing styles used at all levels of soccer play (club, amateur, collegiate, and professional). Students will study current and historic trends in international soccer strategy and play. Proper care of facilities and equipment, and proper safety procedures will also be
covered. Students will apply principles and theories through videotape analysis of various team play and their own play on the field. 1 hour lecture, 3 hours laboratory. Transfer: CSU, UC*. *Any combination of KIN 21,23 and 27: max UC credit, 8 units. (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP

## KIN 23 SPORTS OFFICIATING

2 UNITS
Theory and practical applications of sports officiating. Discussion, study, and Implementation of rule enforcement, mechanics, and techniques used by officials In officiating athletic contests. 1 hour lecture, 3 hours laboratory. Transfer: CSU, UC*. *Any combination of KIN 21, 23 and 27: max UC credit, 8 units. (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## KIN 24 SPORT PSYCHOLOGY

A formal introduction to the study of sport psychology focusing upon both the psychological factors that influence participation in sport and exercise and the psychological effects derived from that participation. Emphasis on understanding the psychological processes involved in human performance, models of intervention that can enhance and improve learning and performance conditions, and the strategies which can elicit and influence favorable psychological perceptions and outcomes. Students who have completed or are enrolled in Psychology 24 may not receive credit. 3 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
KIN 27 PRINCIPLES OF COACHING 2 UNITS
Theory, principles, and ethics of coaching sports with emphasis on the fundamentals and techniques of coaching. Course completion certificate available upon completion (with grade of " $C$ " or higher). 2 hours lecture, 1 hour laboratory. Transfer: CSU, UC*. *Any combination of KIN 21, 23 and 27: max UC credit, 8 units.
Degree Applicable, Credit
Grading Option: OP

## KIN 28 COMPONENTS OF PHYSICAL FITNESS -

 THE HUMAN BODY3 UNITS
Introduction to the science of exercise including basic anatomy, exercise physiology, kinesiology, body mechanics, and nutrition. Applied principles of exercise science including physical fitness assessment, exercise program design, body composition assessment, and professionalism in the fitness field. 3 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## KINESIOLOGY INTERCOLLEGIATE ATHLETICS COURSES

## KIN 31 INTERCOLLEGATE BASKETBALL (MEN'S) 1 UNIT

Training for intercollegiate competition. Daily practice. 5 hours laboratory weekly. AA/AS GE. Transfer: CSU, UC*; *UC Max credit is 4 transfer units of KIN activity courses (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## KIN 36 INTERCOLLEGIATE ATHLETICS:

 CROSS COUNTRYTraining for intercollegiate competition. Daily practice. 10 hours laboratory weekly. AA/AS GE. Transfer: CSU, UC*; *Max UC credit is 4 units of KIN activity courses (May be taken 3 times)
Degree Applicable, Credit
Grading Option: OP

## KIN 38 INTERCOLLEGIATE ATHLETICS: SOCCER 2 UNITS

Training for intercollegiate competition. Daily practice. 10 hours laboratory weekly. AA/AS GE. Transfer: CSU, UC*; *Max UC credit is 4 units of KIN activity courses (May be taken 3 times) Degree Applicable, Credit

Grading Option: OP

KIN 41 INTERCOLLEGATE BASKETBALL (WOMEN'S) 1 UNIT
Training for intercollegiate competition. Daily practice. 5 hours. AA/ AS GE. Transfer: CSU, UC*; *Max UC credit is 4 units of KIN activity courses (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## KIN 46 INTERCOLLEGIATE ATHLETICS: WOMEN'S CROSS COUNTRY

2 UNITS
Training for intercollegiate competition. Daily practice. 10 hours laboratory weekly. AA/AS GE. Transfer: CSU, UC*; *Max UC credit is 4 units of KIN activity courses (May be taken 3 times) Degree Applicable, Credit Grading Option: OP

## KIN 48 INTERCOLLEGIATE ATHLETICS WOMEN'S SOCCER

2 UNITS
Training for intercollegiate competition. Daily practice. 10 hours laboratory weekly. AA/AS GE. Transfer: CSU, UC*; *Max UC credit is 4 units of KIN activity courses (May be taken 3 times) Degree Applicable, Credit

Grading Option: OP

KIN 50 INTERCOLLEGIATE SWIMMING AND DIVING 2 UNITS
Training for intercollegiate competition. Daily practice. 10 hours laboratory weekly. Strongly recommended: Physical Education LTS or SWBI. AA/AS GE. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## LEARNING SKILLS

## About the Program

Learning Skills courses are designed for students who have learning and other cognitive disabilities to learn tools useful for academic success. These courses are offered in a small class environment to maximize learning.

## LEARNING SKILLS (LRNS)

This course is designed to promete the successful transition of students with disabilities to college. Students will be introduced to the overall cultural differences between high school and college as well as the specific demands of accessing support services in college. Emphasis will be placed on the identification of the legal basis for accommodations, the development of advocacy sklls, and the identification of learning strategies. 9 hours total lecture. (May be taken 2 times)
Nondegree Applicable, Credit
Grading Option: $\mathrm{P} / \mathrm{N}$
LRNS 116 DIAGNOSTIC CLINIC AND STUDY SKILLS
1 UNIT
Determination of eligibility for learning skills services through diagnostic testing. Includes state mandated tests. Focus on compensatory methods as derived from test results. 1 hour lecture, 1 hour laboratory. (May be taken 2 times)
Nondegree Applicable, Credit
Grading Option: P/N

## LRNS 117 LEARNING SKILLS - READING <br> 3 UNITS

Preparation for reading success in college level English. Emphasis on learning skills in reading comprehension, decoding, and vocabulary through extensive reading and practice exercises. Prerequisite: Learning Skills 116 (May be taken concurrently) and recommendation of Learning Skills 116 instructor. 2 hours lecture, 3 hours laboratory.
Nondegree Applicable, Credit
Grading Option: P/N

## LRNS 118 LEARNING SKILLS - WRITING <br> 3 UNITS

Preparation for writing success in college-level English. Emphasis on learning skills in sentence parts, paragraph construction, and essay writing assignments. Prerequisite: Learning Skills 116 (May be taken concurrently) and recommendation of Learning Skills 116 instructor. 3 hours. Nondegree Applicable, Credit

Grading Option: $\mathrm{P} / \mathrm{N}$
LRNS 119 LEARNING SKILLS - PROBLEM SOLVING 3 UNITS
Preparation for problem solving success in college. Emphasis on learning skills in quantitative reasoning abilities needed to process and integrate work problems and related problem solving tasks. Prerequisite: Learning Skills 116 (May be taken concurrently) and recommendation of Learning Skills 116 instructor. 3 hours. Nondegree Applicable, Credit

Grading Option: $\mathrm{P} / \mathrm{N}$

LRNS 120 COMPUTER ACCESS
1 UNIT
This course offers specialized computer instruction for students with disabilities. There will be an emphasis on individual learning styles, keyboarding skills, and software mastery. Strongly recommended: Learning Skills 116. 1 hour lecture, 1 hour laboratory. (May be taken 2 times) Nondegree Applicable, Credit

Grading Option: $\mathrm{P} / \mathrm{N}$

# LIBERAL ARTS AND SCIENCES 

© degree

For more information, see a counselor.

## About the Program

The Associate in Liberal Arts and Sciences is designed for students who wish to have a broad knowledge of liberal arts and sciences plus additional coursework in an "Area of Emphasis". This degree would be appropriate for students who plan on transferring to the California State University (CSU) or University of California (UC) as the student can satisfy their general education requirements, plus focus on transferable course work that relate to majors at these institutions. Please consult with a counselor for specific information regarding your intended major at the specific college or university of your choice.

## Degrees/Certificates

- Degree:
- AA - Liberal Arts and Sciences
- Choose either option A or B or C for the General Education pattern related to your educational goal.
- Complete 18 units in one "Area of Emphasis" from those outlined below.
- [Note: Where appropriate, courses in the "area of emphasis" may also be counted for a General Education area. Courses that can be counted for LPC General Education are marked with an asterisk (*).]
- For ALL OPTIONS: complete necessary Las Positas College Graduation and Proficiency requirements (see Las Positas Catalog).
- All classes listed below transfer to CSU. Courses in BOLD
also are transferable to UC. Refer to www.ASSIST.org for transfer details.


## - Associate in Arts Degree

 .25 UnitsThis General Education pattern is designed for students who are not certain of their specific academic major goals and do not have
immediate transfer plans. Students earn the Associate Degree by completing general education and an 18-unit area of academic focus. See page 38 in the Las Positas College catalog for details on General Education, Graduation and Proficiency Requirements.

## - CSU/GE:

 ... 39 UnitsThis general education pattern is designed for students planning to transfer to a California State University (CSU) who wish a broad knowledge of arts and sciences plus additional coursework in an area of academic interest. With proper planning, students will complete lower division degree preparation and general education for transfer while simultaneously completing the AA in Liberal Arts and Sciences. Please consult with a counselor for specific information regarding your intended major at the specific college or university of your choice.

## Requirements

- Minimum units necessary to meet CSU/GE Certification requirements (see pages 44-45 in the Las Positas College catalog)
- Complete remaining Las Positas College General Education, Graduation, and Proficiency Requirements (see page 38 in the Las Positas College catalog)


## - IGETC:

 34 UnitsThis general education pattern is designed for students planning to transfer to a University of California (UC) or other baccalaureategranting college or university who wish a broad knowledge of arts and sciences plus additional coursework in an area of academic interest. With proper planning, students will complete lower division degree preparation and general education for transfer while simultaneously completing the AA in Liberal Arts and Sciences. Please consult with a counselor for specific information regarding your intended major at the specific college or university of your choice.

## Requirements

- Minimum units necessary to meet IGETC Certification requirements (see page 43 in the Las Positas College catalog)


## - Areas of Emphasis:

- 18 units required from one Area of Emphasis listed below
- Courses selected can be used to also fulfill GE areas.
- All courses below transfer to CSU
- Courses in BOLD also transfer to UC
- Electives may be necessary to total 60 overall units required for the Associate Degree


## Areas of Emphasis

## 1. Business

Minimum 18 units required
Minimum three units from both disciplines
These courses emphasize the integration of theory and practice within the field of business. Students will develop the ability to effectively manage and lead organizations. Students will demonstrate an understanding of the place of business within the global economy. Students will critically apply ethical standards to business practices and decisions. With this degree, students will be prepared to pursue a baccalaureate major or immediately begin a dynamic career in the rewarding and growing fields of marketing, management, business administration and accounting.

## Business:

1A, 1B, 18, 20, 30*, 40, 43, 48, 51A, 51B, 52*, 53, 55*, $56,58,60,75.1,75.2,75.3,75.4,75.5,75.6,76,81,84$, 85, 88, 95, 96

Marketing: $\quad 50,60,61,63,64$

## 2. Computer Studies

Minimum 18 units required
Minimum three units from each of the three disciplines
These courses emphasize the integration of theory and practice within the field of computer applications, computer networking, and computer science. Students will develop the ability to effectively use computer applications, manage and maintain networks, and develop software applications. Students will demonstrate an understanding of the place of technology within the global economy. Students will critically evaluate the impact of technology on the workplace, on their lives, and on society as a whole.

Students will be prepared to pursue a baccalaureate major in Information Technology, Management Information Systems, Computer Engineering, Networking and Data Communications, and Software Engineering. Career opportunities include but are not limited to: administrative assistant, computer programmer, computer technician, customer service representative, database administrator, help desk specialist, network administrator, receptionist, technical support specialist, and web site designer/webmaster.

| Computer Information | 8, 43, 48, 50*, 54, 55, 55B, 57, |
| :---: | :---: |
| Systems: | 59AB, 60, 65, 66, 68, 69, 72A, 72B, 77, 78, 79, |
|  | 80*, 88A, 88B, 89A, 89B, 95, 96 |
| Computer Science: | 1*, 2, 7, 20, 21, 30, 31, 32, 33, 34, 35, 36, 37, |
|  | 38, 39, 40, 41, 42, 43, 44, 45, 47, 48, 95, 96 |


| Computer Networking $\quad 43,50,51 \mathrm{AB}, 52,54,55,56,57,62 \mathrm{AB}, 63,64$, |  |
| :--- | :--- |
| Technology: | $65,66,67,68,69,70,72,73.1,73.2,74.1,75.1$, |
|  | $75.2,771,95,96$ |

## 3. Humanities

Minimum 18 units required
Minimum six units from the Arts and six units from Humanities Maximum three units of credit for studio/performance courses

These courses emphasize the study of cultural, literary, humanistic activities and artistic expression of human beings. Students will evaluate and interpret the ways in which people through the ages in different cultures have responded to themselves and the world around them in artistic and cultural creation. Students will also learn to value aesthetic understanding and incorporate these concepts when constructing value judgments.

Career opportunities include, but are not limited to: design consultant, graphics designer, interior decorator, interpreter/translator, layout editor, teachers aide, photographer, set construction worker, theatre set designer, travel guide, and web site designer. Majors at a 4-year institution appropriate for this Area of Emphasis include but are not limited to: Classical Civilization, Design, Dramatic Arts, Film Studies, Literature, Music, and Philosophy

## Art

Art: $\quad 1^{*}, ~ 2 A^{*}, ~ 2 B, 3 A^{*}, ~ 3 B, ~ 3 C, ~ 3 D, ~ 4 *, ~ 5 *, ~ 7 A, ~ 7 B, ~ 7 C, ~ 7 D, ~$ 10*, 11, 12A, 12B, 12C, 12D, 13A, 13B, 13C, 13D

## Creative Arts: 10*



Spanish: $\quad 1 A^{*}, 1 B^{*}, 2 A^{*}, 2 B^{*}$

| Music: | $\begin{aligned} & 1^{\star}, 2^{\star}, 4^{\star}, 5^{\star}, 6,8 \mathrm{~A}, 8 \mathrm{~B}, 10 \mathrm{~A}, 10 \mathrm{~B}, 12^{\star}, 14^{\star}, 15,16 \\ & \text { 20, 21A, 21B, 23A, 23B, 25, 26, 27, 28, 30, 31, 33, 38, } \\ & 39,40,42,43^{\star}, 44^{\star}, 45,46 A^{\star}, 46 \mathrm{~B}^{\star}, 47 \end{aligned}$ |
| :---: | :---: |
| Theater Arts: | $\begin{aligned} & 1 A^{*}, 1 B^{*}, 3^{*}, 4^{*}, 5,10^{*}, 11,12^{*}, 14,25^{*}, 30,39,40,41, \\ & 46,47^{*}, 48^{*} \end{aligned}$ |
| Visual Communications: | $50, \mathbf{5 1}, \mathbf{5 2}, 53,54,55,56,57,58,59,60,61,62,63$, $63 \mathrm{IN}, 64,65,65 \mathrm{IN}$ |
| Photography: | 50, 51, 52, 56, 58, 60, 64A, 66, 67*, 68, 72 |

## Humanities

| Humanities: | 1*, 3*, 7*, 10*, 28*, 35*, 40*, 44* |
| :---: | :---: |
| History: | 1*, 2* |
| Library Studies: | 4, 5, 6, $\mathbf{7}$ (unit limitations apply to UC Transfer) |
| Philosophy: | 1*, 2*, 3*, 4*, 5*, 7*, 25* |
| Religious Studies | $1^{*}, 2^{*}, 3^{*}, 11^{*}$ |

## 4. Language Arts

Minimum 18 units required
Minimum three units from at least two disciplines listed below
These courses emphasize the content of communication as well as the form and should provide an understanding of the psychological basis and social significance of communication. Students will be able to assess communication as the process of human symbolic interaction. Students will also develop skills in the areas of reasoning and advocacy, organization, reading and listening effectively.

Students will be able to integrate important concepts of critical thinking as related to the development of analytical and critical evaluation, being able to reason inductively and deductively, enabling them to make important decisions regarding their own lives and society at large

Career opportunities include, but are not limited to: announcer, assistant copywriter, communications specialist, copy writer, human resources specialist, journalist, lobbyist, sales representative, teacher, and teacher's aide. Majors at a 4-year institution appropriate for this Area of Emphasis include, but are not limited to: English, Journalism, Linguistics, Mass Communication, Rhetoric, and Speech.

American
$1 A^{*}, 1 B^{*}, 2 A^{*}, 2 B$
Sign Language:
English:
1A* $\mathbf{3}^{*}$, 4* $^{*}$, 7* $^{*}, 11^{*}, 12^{*}, 13^{*}, 19,20^{*}, 43,4^{*}, \mathbf{4 5}^{*}$

English as a
23, 24, 25, 26
Second Language:
Mass Communications: $1^{*}, 2,3,5^{*}, 15,15 \mathrm{~L}, 16,31,32^{*}, 32 \mathrm{~B}, 33 \mathrm{~A}, 33 \mathrm{~B}, 34$, 35, 72

Speech:

$$
\mathbf{1}^{*}, \mathbf{2 A *}, \mathbf{2 B}, \mathbf{3}, \mathbf{5}, 43, \mathbf{4 6}^{*}, 48
$$

## 5. Mathematics and Science

Minimum 18 units required
Minimum six units from Science and six units from Mathematics

These courses emphasize the natural sciences which examine the physical universe, its life forms and its natural phenomena. Courses in math emphasize the development of mathematical and quantitative reasoning skills beyond the level of intermediate algebra. Students will be able to demonstrate an understanding of the methodologies of science as investigative tools. Students will also examine the influence that the acquisition of scientific knowledge has on the development of the world's civilizations.

Career opportunities include, but are not limited to: entry-level technician for biological, chemical, biotech, or pharmaceutical companies, data analyst, teacher's aide, and tutor. Majors at a 4-year institution appropriate for this area of emphasis include, but are not limited to: Animal Science, Biology, Engineering, Geology, Nursing, and Physics.

## Science

| Anatomy: | 1* |
| :---: | :---: |
| Astronomy: | 1*, 10*, 20*, 30*, 40 |
| Biology: | 1*, 5*, 10*, 20*, 31*, 40, 50* |
| Botany: | 1* |
| Chemistry: | 1A*, 1B, 12A, 12B, 30A*, 30B, 31* |
| Ecology: | 10* |
| Geography : | 1*, 12*, 8*, 1*5 |
| Geology: | 1*, 12*, 3*, 3L*, 12*, 12L* |
| Microbiology: | 1* |
| Physics: | 2A*, 2B, 8A*, 8B, 8C, 8D, 10*, 10L* |
| Physiology: | 1* |
| Zoology: | 1* |
| Mathematics |  |
| Mathematics: | $\begin{aligned} & 1^{\star}, 2^{\star}, 3,5,7,10^{\star}, 20^{\star}, 33^{\star}, 34^{\star}, 38^{\star}, 41^{\star}, 42 A^{*} \\ & \text { 42B, } 44^{\star}, 45^{*} \end{aligned}$ |

## 6. Social Science

Minimum 18 units required
Minimum of three units from three different disciplines

These courses emphasize the perspective, concepts, theories and methodologies of the disciplines typically found in the vast variety of disciplines that comprise study in the Social and Behavioral Sciences. Students will study about themselves and others as members of a larger society. Topics and discussion to stimulate critical thinking about ways people have acted in response to their societies will allow students to evaluate how societies and social subgroups operate.

Degrees in Social Science can lead to career opportunities in law enforcement, human services, education, non-profit organizations, and business. Majors at a 4-year institution appropriate for this area of emphasis include, but are not limited to: Administration of Justice, Anthropology, Child Development, Government, History, Psychology, and Social Work.

Administration 50, 51, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, of Justice: $\quad 67,69,70,71,72,73,74,75,76,77,79,81,82,84,86,89$, 99.97

Anthropology: 1*, 1L*, 2*, 3*, 5*, 12*, 13*
Early Childhood
Education: 40, 51*, 52*, 60, 62*, 79*

| Economics: 1 | 1*, 2*, 5*, 10* |
| :---: | :---: |
| Geography: 2 | 2*, 5*, 12* |
| General Studies: 25, 25L |  |
| History: | 7*, 8*, 14*, 25*, 28*, 32* |
| Political Science: | : 7*, 12*, 20*, 25*, 30*, 45 |
| Psychology: | 1*, 2*, 3*, 4*, 6, 10*, 12*, 15*, 16, 20*, 24 |
| Psychology-Couns | nseling: $3^{*}, 5,6,7,8^{*}, 13 *$ |
| Sociology: | $1^{*}, 3^{*}, 4^{*}, 5^{*}, 6,7,11^{*}$ |

## LIBRARY STUDIES


#### Abstract

About the Program Library Studies are for students doing research projects, transferring to a four year college, or wanting to locate sources of information in a more efficient manner. These classes teach the research process including location, evaluation, and citation of sources from the library catalog, the library databases, and the web. Students transferring to a four year college will be expected to have these research skills.


## LIBRARY STUDIES (LIBR)

## LIBR 4 INTRODUCTION TO RESEARCH

 IN THE LIBRARY0.5 UNITS

Introduction to basic research techniques in a college library: print and audiovisual materials. Focus is on use of the library catalog, catalog search strategies, organization of materials in the library including reference, faculty reserves, circulating books, audiovisuals, use of reference materials, evaluation of relevant resources, recognition of plagiarism, and bibliographic citation of books, audiovisuals, and print magazines and journals. 9 hours total. Transfer: CSU, UC*. *LIBR 4, 5, 7, \& 8 combined, max UC credit, one course.
Degree Applicable, Credit
Grading Option: OP

## LIBR 5 INTRODUCTION TO GENERAL RESEARCH DATABASES

0.5 UNIT

Introduction to research techniques in a college library: electronic resources found in general research databases. Focus on campus and remote use of multi-disciplinary research databases, search strategies, distinction between scholarly journals and popular magazines, evaluation of relevant resources, recognition of plagiarism, and bibliographic citation of articles from periodical databases. 9 hours total. Transfer: CSU, UC*. *LIBR 4, 5, 7, \& 8 combined, max UC credit, one course.
Degree Applicable, Credit
Grading Option: OP

## LIBR 6 INTRODUCTION TO SPECIALIZED

 RESEARCH DATABASES0.5 UNIT

Introduction to research techniques in a college library: specialized research databases. Focus on campus and remote use of subject databases, emphasis on discipline specific electronic resources, search strategies, evaluation of relevant resources, distinction between scholarly journals and popular magazines, discussion of plagiarism, and bibliographic citation of articles. 9 hours total. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

LIBR 7 INTRODUCTION TO INTERNET RESEARCH 0.5 UNIT
Introduction to research techniques in a college library: Internet. Focus on use of the Internet for research purposes, including web search strategies, appropriate search engines and directories, evaluation techniques for web resources, recognition of plagiarism, and bibliographic citation of web resources. 9 hours total. Transfer: CSU, UC*. *LIBR 4, 5, 7, and 8 combined: max UC credit, one course. Degree Applicable, Credit

Grading Option: OP

## LIBR 8 INTRODUCTION TO LIBRARY RESEARCH

 AND INFORMATION LITERACY SKILLS2 UNITS
Introduction to research techniques using college library resources. Teaches the skills needed to successfully find, evaluate, and document information in print, electronic, and Internet formats. Covers plagiarism, the ethical and legal aspects of information use, and the critical thinking skills necessary for successful college research.
2 hours lecture. Transfer: CSU, UC*. *LIBR 4, 5, 7, \& 8 combined, max UC credit, one course.
Degree Applicable, Credit
Grading Option: OP

## MARKETING

## $\bigcirc$ DEGREE CERTIFICATE

## About the Program

Academic preparation in Marketing can lead to work in product development, sales, advertising, retailing, research and more. The course offerings provide a solid foundation and preparation for entrylevel marketing positions.

## Degrees/Certificates

- Degree:
- AA - Marketing
- Certificate of Achievement:
- Retailing


## AA - Marketing

In addition to advertising and promotion, the field of marketing involves everything from researching whether a new product is needed, to labeling, packaging, transportation, warehousing, merchandising and sales. The ability of every organization to survive is directly affected by marketing. Entry-level jobs exist in manufacturing, service firms, wholesalers, retailers, advertising agencies, consulting firms and private and public non-profit organizations. While units in the program are transferable to many institutions, this program is designed to prepare students to enter the work force. Students should consult a counselor for information.

## Certificate of Achievement - Retailing

This program provides a detailed focus on marketing and retailing, and then allows the student to choose from a variety of business related options, depending on the student area of interest. While many units in this program are transferable to other institutions, students should consult a counselor for transfer information.
AA - Marketing
Freshman YearBusiness 48 (Human Relations in the Workplace) orBusiness 52 (Business Communications) orBusiness 53 (Business Correspondence).. 3
Business 55** (Business Mathematics) .....  3
Business 40 (Business Concepts).Business 51A (General Accounting I) or
Business 1A (Principles of Accounting I) ..... 3-4
Marketing 50 (Introduction to Marketing) .....  3
Economics 10*** (General Economics) or
Economics 2*** (Macroeconomics)... .....  3
Recommended Electives*
General Education Courses
Sophomore Year
Marketing 61 (Professional Selling). .....  3
Business 18 (Business Law). .....  4
Computer Information Systems 50 (Introduction to Computing and Information Technology) .....  3
Marketing 64 (Introduction to Advertising) or Marketing 56 (Retail Strategies). .....  3
Business 95 (Work Experience) ..... 1-2
Business 96 (Work Experience Seminar) or
Business 56 (Concepts of Management) ..... 1-3
Recommended Electives*
General Education Courses
Total units required ..... 60
*Recommended Electives
Business 30 (Business, Society, and Ethics)Business 56 (Concepts of Management)
Marketing 60 (Retail Store Management)** Meets Math; Communications/Analytical Thinking Requirements***Meets Social and Behavioral Sciences requirement
Certificate of Achievement Retailing
Business 55 (Business Mathematics) .....  3
Marketing 50 (Introduction to Marketing). .....  3
Marketing 56 (Retail Strategies).. .....  3
Marketing 60 (Retail Store Management) .....  3
Marketing 61 (Professional Selling).. .....  3
Work Experience 95 (Work Experience) ..... 1-3
Work Experience 96 (Work Experience Seminar). .....  1
Electives*. .....  15
Total units required ..... 35-37
*Electives
Select from the following for a minimum of 15 units:
Business 18 (Business Law)
Business 40 (Introduction to Business)
Business 51A (General Accounting I) or
Business 1A (Principles of Accounting)
Business 52 (Business Communications) or
Business 43 (Professional Communications)
Business 53 (Business Correspondence)
Business 58 (Small Business Management)
Computer Information Systems 50 (Introduction to Computingand Information Technology)
Marketing 64 (Introduction to Advertising)
Business 48 (Human Relations in the Workplace)
56 (Intoduction
BUSN 43 (Professional Communications) may be used instead of BUSN 52 (BusinessCommunications) or BUSN 53 (Business Correspondence) where they are required.

## MARKETING (MKTG)

MKTG 50 INTRODUCTION TO MARKETING 3 UNITS
Introduction to marketing principles, concepts and methods as an evolving process that creates and delivers value. Focus on the evolution of the marketing system; market research; research on the demographic and behavioral dimensions of markets; internal and external variables in designing a marketing program; analysis of marketing strategies and the impact of the external business environments on marketing mix decisions. Strongly recommended: English 1A. 3 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP
MKTG 52 MARKETING STRATEGY
2 UNITS
Use of marketing principles to decide on the proper strategies for beating the competition and achieving company goals. Emphasis on decision making in a simulated dynamic marketing environment. Strongly recommended: Marketing 50. 1 hour lecture, 3 hours laboratory. Degree Applicable, Credit

Grading Option: OP

## MKTG 56 RETAIL STRATEGIES

3 UNITS
An overview of marketing in the retail industry. Developing business strategies appropriate to consumer behavior. Applying the principles of persuasion in image development, Internet retailing and visual merchandising. Developing a successful media plan, including advertising, promotions and public relations. Strongly recommended: Marketing 50 or Business 53.3 hours lecture.
Degree Applicable, Credit
Grading Option: OP

MKTG 60 RETAIL STORE MANAGEMENT
3 UNITS
Profitably starting and managing a retail business. Practical information such as finding a site and managing personnel, merchandising, buying, pricing, financial management, store security and information systems. Strongly recommended: Marketing 56 or Business 53.
3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
MKTG 61 PROFESSIONAL SELLING
3 UNITS
Principles involved in selling products or services. Includes buying motives, sales call planning, ethics, handling buyer objections and territory management. Focus on making product presentations, time management, prospecting, integrated sales systems, and developing customer relationships. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## MKTG 63 SALES FORCE MANAGEMENT

3 UNITS
Principles and techniques involved in recruiting, selecting, training, directing and controlling an outside sales force. Includes tasks of sales forecasting, budgeting, designing territories and analyzing sales results. Strongly recommended: Marketing 61. 3 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

MKTG 64 INTRODUCTION TO ADVERTISING
3 UNITS
This course examines the major components of modern advertising and promotion including a survey of the major groups of advertising media. Key areas explored include the social and economic role of advertising, controls over advertising, planning of the media campaign, and the role of research, media planning, advertising strategy and integration with other elements of the marketing mix. Strongly recommended: Marketing 50. 3 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

# MASS COMMUNICATIONS 

Certificate

## About the Program

The Las Positas College Mass Communications program and the Associate in Arts Degree in Mass Communications are designed to provide students with a broad understanding of the principles, roles, techniques, and effects of media in society as well as experience in the application of these principles to the student media. Student media at Las Positas College include the newspaper, the radio station, the journalistic magazine, the literary magazine, television, and video journalism, all of which include multimedia components. The Las Positas College Mass Communications Associate Degree provides specific hands-on training that will prepare students for immediate job entry, especially involving broadcast and technology.

Mass Communications at Las Positas College also includes options for students who are entering the workforce, including a Certificate of Achievement in Mass Communications: Journalism and a low-unit local Career Certificate in Mass Communications: Radio. Since some students may view the AA degree to be the culmination of their educational experience, the broad-based focus serves to hone and refine students' reading, writing, speaking, cultural literacy, and critical thinking skills, enabling them to succeed in an academic environment or in the workplace and providing specific hands-on skills that would be especially beneficial in the workplace.

## Degrees/Certificates

- Associate in Arts - Mass Communications
- Certificate of Achievement
- Career Certificate


## Transferability

The courses in this program fulfill some of the typical lower-division requirements at four-year transfer institutions. Some variation in requirements may exist at a particular four-year college or university; therefore, it is essential that students refer to the catalog of the prospective transfer institution and consult with a counselor.

## Certificate of Achievement Mass Communications: Journalism

Freshman Year
English 1A (Critical Reading and Composition)........................................... 3
Mass Communications 1 (Journalism: News Writing and Information Gathering). $\ldots . .3$

Mass Communications 5 (Introduction to Mass Communications) or
Mass Communications 31 (Introduction to Media)......................................... 3
Electives*. .. 3

Sophomore Year

Mass Communications 72 (Beginning Photojournalism) or
Photography 72 (Documentary Photography) or

Mass Communications 35 (Introduction to Video Journalism).
.2-3

Electives*.
..... 9

Total units required.

## *Electives

Select from the following Groups, A and/or B, for a minimum of 12 units:

## Group A

Mass Communications 16 (Express College Newspaper)

Mass Communications 17 (Express Editorial Board)
Mass Communications 34 (Magazine Editing and Production)
Mass Communications 16 (Newspaper Production)
English 19 (Literary Magazine) or Mass Communication 19
(Literary Magazine)
Work Experience 95 (Occupation Work Experience Education)
Work Experience 96 (Seminar)

## Group B

Mass Communications 2 (Journalism: Investigative News Writing)
Mass Communications 3 (Journalism: Magazine and Newspaper Feature Writing)
Mass Communications 32A (Radio Production)
Mass Communications 7 (Introduction to Public Relations)

## MASS COMMUNICATIONS (MSCM)

## MSCM 1 JOURNALISM: NEWS WRITING AND INFORMATION GATHERING

3 UNITS
Fundamentals of reporting and news writing to develop ability to investigate, organize, write and rewrite according to professional standards of print journalism. Analysis of exemplary journalistic models. Conceive, research, and write stories, using traditional news values. Requires source interviews or original research. Strongly Recommended: Eligibility for English 1A. 3 hours lecture. AA/AS GE. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR
MSCM 2 JOURNALISM: INVESTIGATIVE NEWS WRITING 3 UNITS
News and feature writing, emphasizing investigative reporting, research techniques, and story presentation. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU
Degree Applicable Credit
Grading Option: GR

## MSCM 3 JOURNALISM: MAGAZINE AND FEATURE WRITING

3 UNITS
Feature writing, freelance journalism and how to get published in newspapers and magazines. Strongly Recommended: Eligibility for English 1A. 3 hours. Transfer: CSU
Degree Applicable Credit Grading Option: GR

## MSCM 5 JOURNALISM: INTRODUCTION TO MASS COMMUNICATIONS

3 UNITS
History of the press and mass media; the political, social and economic impact of the press on government and public opinion. The social and cultural impact of the media and its role in shaping public perception. An overview of the news process and job opportunities in the media. Strongly Recommended: Eligibility for English 1A. 3 hours. AA/AS GE. Transfer: CSU, UC*; CSU GE: D7; IGETC: 4G. *MSCM 5 and 31 combined: max UC credit, one course.
Degree Applicable Credit
Grading Option: GR
MSCM 7 INTRODUCTION TO PUBLIC RELATIONS 3 UNITS
Introduction to the principles, evolution, and professional practice of public relations. Concepts of planning and executing effective communication strategies, including message design and distribution, for all types of organizations. Strongly recommended: Eligibility for English 1A. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## MSCM 14 WRITING AND PHOTOGRAPHY

 FOR A COLLEGE NEWSPAPER1 UNIT
Journalism and photojournalism, content development/production for the weekly college newspaper. 3 hours laboratory. (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## MSCM 15 PUBLICATIONS: EDITORIAL LEADERSHIP AND PRODUCTION

3 UNITS
Journalism, photojournalism, content development, and production for the college newspaper. Production of the college newspaper, including writing, business management, graphic arts, leadership, and editing. Ethical, practical, and legal issues in journalism. Strongly Recommended: Eligibility for English 1A. 1 hour lecture, 6 hours laboratory. Transfer: CSU (May be taken 4 times).
Degree Applicable, Credit
Grading Option: GR

## MSCM 15L PUBLICATION: EDITORIAL LEADERSHIP

 AND PRODUCTION LABORATORY2 UNITS
Practice in the skills of journalism, photojournalism, content development, and production for the college newspaper. Production of the college newspaper, including writing, business management, graphic arts, leadership, and editing. Application of ethical practical, and legal principles of journalism to the college newspaper. Strongly Recommended: Eligibility for English 1A. Corequisite: Mass Communications 15.6 hours laboratory. Transfer: CSU (May be taken 4 times).
Degree Applicable, Credit
Grading Option: GR

MSCM 16 EXPRESS COLLEGE NEWSPAPER 3-6 UNITS
Journalism, photojournalism, content development, and online and print production for the college newspaper. Production of the college newspaper, including writing, business management, graphic arts, design, online and print production, and introduction to leadership and editing skills. Ethical, practical, and legal issues in journalism. The number of laboratory units will be agreed upon and scheduled by instructor and student based on the student's job description and availability to participate. Strongly Recommended: Eligibility for English 1A. 2 hours lecture, 3 to 12 hours laboratory. Transfrer CSU Degree Applicable, Credit

Grading Option: OP
MSCM 17 EXPRESS EDITORIAL BOARD
1 UNIT
The roles and responsibilities of leaders on the college newspaper, the Express. Practical experience participating in editorial board meetings, setting policy for the newspaper, and leading in the decision-making process for issue planning, budgeting, and the development of the newspaper. Enrollment is limited to editors or managers of the Express. Strongly recommended: Eligibility for English 1A. 1 hour lecture. Transfer: CSU (May be taken four times)
Credit, Degree Applicable Grading Option: OP
MSCM 19 LITERARY MAGAZINE
2-3 UNITS
Creation of a literary-style student magazine. Practical training in the managing, editing, formatting, and printing of a literary supplement and/or magazine. Enrollment constitutes the staff of the magazine. The number of laboratory units will be agreed upon and scheduled by instructor and student based on the student's job description and availability to participate. Students may enroll in Mass Communications 19 and/or English 19 for a total of four times.
1 hour lecture, 3 or 6 hours laboratory. Transfer CSU Degree Applicable, Credit

Grading Option: OP

MSCM 31 INTRODUCTION TO MEDIA
3 UNITS
A survey of radio, television, film, and multimedia and their impact on culture and society; includes economics, technological development, programming, ratings, legal aspects, and social control of broadcasting in America, and cross-cultural, international comparisons. Strongly recommended: Eligibility for English 1A. 3 hours lecture. AA/AS GE. Transfer: CSU, UC*; CSU GE: D7; IGETC: 4G. *MSCM 5 and 31 combined, max UC credit, one course.
Degree Applicable, Credit Grading Option: OP

MSCM 32 RADIO PRODUCTION
3 UNITS
History, law, ethics, theory, and practical use of radio technology.
Operations procedures and practices in a modern radio broadcast
studio. Extended study of various aspects of radio production, including editing and announcing, producing studio-recordings, producing a news or feature interview story, producing pre-recorded newscasts, supporting station operations, preparing content for radio programming, publishing content online, selling ads, establishing a brand identity, producing news, collaborating with other media, creating and maintaining audio streams, podcasts, and direct feed, creating content for a multimedia website, and producing ad spots and promotional posts. 3 hours lecture. AA/AS GE. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: GR

MSCM 32B INTERMEDIATE RADIO PRODUCTION 1-2 UNITS
Intermediate-level procedures and practices in a modern radio broadcast studio. Extended study of various aspects of intermediatelevel radio production, including editing and announcing, producing a live newsmagazine interview program, producing pre-recorded newscasts, managing station operations, preparing commercial radio programming, selling ads, establishing a brand identity, producing news, collaborating with other media, creating and maintaining audio streams, podcasts, and direct feed, creating a multimedia news website, and producing ad spots and promotional posts. Prerequisite MSCM 32 (completed with a grade of " $C$ " or higher). The number of laboratory units will be agreed upon and scheduled by instructor and student based on the student's job description and availability to participate. 3 or 6 hours laboratory. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

MSCM 32L RADIO PRODUCTION LAB
1-2 UNITS
Procedures and practices in a modern radio broadcast studio. Extended study of various aspects of radio production, including editing and announcing, producing a live entertainment program, producing a live newsmagazine interview program, producing pre-recorded newscasts or feature interview story, managing station operations, preparing live radio programming, selling ads, establishing a brand identity, producing news, collaborating with other media, creating and maintaining audio streams, podcasts, and direct feed, creating content for a multimedia website, publishing recordings online and producing ad spots and promotional posts. The number of laboratory units will be agreed upon and scheduled by instructor and student based on the student's job description and availability to participate. 3 to 6 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## MSCM 33A INTRODUCTION TO TELEVISION STUDIO OPERATIONS

3 UNITS
Introduction to the theory, terminology, and operations within a television studio and control room. This introduction includes television directing, the operation of television audio equipment, TV cameras, and television switcher, fundamentals of TV lighting, graphics, video control, and video tape recording for TV and documentaries. 2 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## MSCM 33B INTERMEDIATE TELEVISION STUDIO OPERATIONS

3 UNITS
Further experience in television studio operations, control room procedures, and basic program production. Designed to improve skills in operating television equipment and producing and directing TV programs. Emphasis is placed upon theory and practice in television production, including planning, writing, producing, staging, and directing interviews, commercials, public service announcements, dramatic pieces, multimedia, and other program segments. Prerequisite: Mass Communications 33A (completed with a grade of " $C$ " or higher). 2 hours lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

MSCM 34 MAGAZINE EDITING AND PRODUCTION 3-5 UNITS
Creation of a journalistic-style student magazine. Emphasis is placed on developing content, writing in-depth magazine articles, producing photographs and other visual elements, correlating copy and visuals, laying out pages in the production process, copy editing, promoting advertising, managing the business-side of the magazine, and exploring ethical issues. Strongly Recommended: Eligibility for English 1A. The number of laboratory units will be agreed upon and scheduled by instructor and student, based on the student's job description and availability to participate. 2 hours lecture, 3, 6, or 9 hours laboratory Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
MSCM 35 INTRODUCTION TO VIDEO JOURNALISM 3 UNITS The fundamentals of using digital video and audio for online reporting for campus media. Understanding the role of video journalism in relation to the increasing convergence of print, broadcast, and online media. Introduction to the legal and ethical issues in the recording or videotaping of news sources. Emphasis is placed upon the methods and techniques of video journalism, including scripting, storyboarding, digital video camera use, lighting, sound, and editing with video editing software such as FinalCut Pro. 1 hour lecture, 6 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
MSCM 72 BEGINNING PHOTOJOURNALISM
2 UNITS
Photography exploring the documentary approach. Survey of photojournalism as a medium of mass communications. Understanding and applying photojournalistic and basic technical and visual skills in the making of successful reportage photographs. Consideration of the work of major 20th century photojournalists. Strongly recommended: Photography 50 or Mass Communications 14. 1 hour lecture, 4 hours laboratory. Transfer: CSU, UC (May be taken 3 times)
Degree Applicable, Credit
Grading Option: GR

## MATHEMATICS

## About the Program

Mathematics is one of the oldest intellectual disciplines, yet it has never lost its relevance; we are continually finding new and exciting applications in fields as diverse as biology and counter-terrorism. Mathematical methods play a pivotal role in bioinformatics, cryptography, computer graphics, analysis of large-scale networks, cyber security and operations research, as well as in computer science, engineering, business, and the natural, physical and social sciences. Applications of mathematics can be found in many vocational disciplines such as carpentry, electronics, automotive technology and welding.

The mathematics department at Las Positas College offers a wide range of courses in a variety of formats designed to meet the needs of a diverse student population. Whatever your educational goals, we have the courses you need to succeed. We offer a full lower-division curriculum which prepares students for transfer to four-year institutions, as well as basic skills and associate degree applicable courses.

## Degrees/Certificates

- Degree:
- AS - Mathematics for Transfer AS-T in Mathematics


## New Program Requirements

To obtain the Associate in Science Degree in Mathematics for Transfer, students must complete the following requirements with a minimum grade point average (GPA) of 2.0:

- The Mathematics major requirements below.
- The California State University General Education - Breadth (CSUGE) or the Intersegmental General Education Transfer Curriculum (IGETC) requirements.
- Any needed transferable electives to reach a total of 60 CSU transferable units.


## Freshman Year

Math 1 (Calculus I)*................................................................................................. 5 units
Math 2 (Calculus II)* ................................................................................ 5 units
General Education Courses

Sophomore Year
Math 3 (Calculus III)................................................................................... 5 units
Math 7 (Elementary Linear Algebra)*................................................. 3.5 units
General Education Courses
Note: Math 7 can be taken fall or spring of sophomore year.
Options (select one):

| Option | Units | When it can be taken |
| :--- | :--- | :--- |
| CS 1 <br> (Computing Fundamentals I) | 4 | Any semester, either year |
| Math 42A* <br> (Introduction to <br> Probability and Statistics) | 3 | Any semester, either year |
| Math 10* <br> (Discrete Mathematics) | 4 | Spring of freshman year, <br> assuming Math 1 completed in <br> the fall, or sophomore year. |
| Option | Units | When it can be taken |
| Phys 8A** <br> (General Physics I) | 5 | Spring of freshman year, <br> assuming Math 1 completed in <br> the fall, or sophomore year. |
| Math 5 <br> (Ordinary Differential <br> Equations) | 3.5 | Spring of sophomore year, <br> assuming Math 3 completed <br> in the fall |

*Fulfills CSU-GE Breadth area B4 Mathematics/Quantitative Reasoning
** Fulfills CSU-GE Breadth area B1 and B3 Physical Science \& Physical Science Lab
All courses must be completed with a grade of $C$ or better.
Total units in the major.
21.5-23.5

Total units in the degree:
Degree Requirements Units
Required courses in the major................................................................... 18.5
Optional courses in the major .....................................................................-7
CSU-GE Breadth or IGETC....................................................................................... 37
Units that can be double counted*............................................................-.
Maximum total required units....................................................................... 57.5
Total units with elective(s)............................................................................ 60
*Double counting courses in GE and the major is permissible. The number of units that may be double counted will depend on the entry point to the degree program and the optional courses(s) taken. Consult with an advisor or a counselor to plan the courses necessary to achieve your academic goal.

## Career Opportunities

The Associate in Science Degree in Mathematics for Transfer is intended to provide an option for students who plan to complete a bachelor's degree in a similar major at a CSU campus, or pursue a teaching career, since teachers of mathematics are always in demand. The study of mathematics can prepare students for a variety of technical and scientific careers. The problem solving and communication skills acquired are valuable in business, industry, and everyday life, and mathematics is an essential component of any engineering or science degree.

## Transferability

The Mathematics Department offers the full range of mathematics courses typical of the lower division requirements for a mathematics, computer science, engineering or science major at a four year institution, as well as transferable courses which satisfy the IGETC and CSUGE breadth requirements. The major requirements for the Associate in Science Degree in Mathematics for Transfer align with the intersegmental Transfer Model Curriculum (TMC) for Mathematics. Students will have guaranteed admission to a California State University (CSU) campus upon successful completion of the program requirements. Students should consult with a counselor to determine whether this degree is the best option for their transfer goals.
General education requirements should be selected carefully based on the intended transfer institution.

## MATHEMATICS (MATH)

## MATH X SUPERVISED PROGRAMMED LEARNING 1-5 UNITS

Self-paced learning in mathematics using programmed materials under instructor supervision. Credit may be earned in Mathematics 55, 55A,
55B, 65, 65A, 65B, 71, and 107, according to the level of achievement. 3-5 hours.
Non-transferable
Grading Option: See individual courses for grading options

## MATH 1 CALCULUS I <br> 5 UNITS

An introduction to single-variable differential and integral calculus including: functions, limits and continuity; techniques and applications of differentiation and integration; differentiation and integration of trigonometric, exponential and logarithmic functions; the Fundamental Theorem of Calculus; areas and volumes of solids of revolution. Prerequisite: Mathematics 20 (completed with a grade of " C " or higher) or an appropriate skill level demonstrated through the Mathematics assessment process. 5 hours, 0-1 laboratory hour. AA/AS GE. Transfer: CSU, UC*; CSU GE: B4; IGETC: Area 2. *MATH 1, 2 and 33, 34 combined: max UC credit, one series.
Degree Applicable, Credit
Grading Option: GR

## MATH 2 CALCULUS II <br> 5 UNITS

Continuation of single-variable differential and integral calculus. Topics covered include: inverse and hyperbolic functions; techniques of integration; parametric equations; polar coordinates; sequences, series, power series and Taylor series. Introduction to Cartesian coordinates in three dimensions and operations with vectors. Primarily for mathematics, physical science and engineering majors. Prerequisite: Mathematics 1 (completed with a grade of " $C$ " or higher) or an appropriate skill level demonstrated through the Mathematics placement process. 5 hours lecture, 0-1 laboratory hours. AA/AS GE. Transfer: CSU, UC*; IGETC: Area 2. *MATH 1, 2 and 33, 34 combined: max UC credit, one series.
Degree Applicable, Credit.
Grading Option: GR

## MATH 3 MULTIVARIABLE CALCULUS <br> 5 UNITS

Vector valued functions, functions of several variables, partial differentiation, multiple integration, change of variables theorem, scalar and vector fields, gradient, divergence, curl, line integral, surface integral, Green's Stokes' and divergence theorem, applications. Prerequisite: Mathematics 2 (completed with a grade of "C" or higher). 5 hours. AA/AS GE. Transfer: CSU, UC; IGTEC: Area 2
Degree Applicable, Credit. Grading Option: GR
MATH 5 ORDINARY DIFFERENTIAL EQUATIONS 3.5 UNITS Introduction to differential equations including the conditions under which a unique solution exists, techniques for obtaining solutions, and applications. Techniques include generation of series solutions, use of Laplace Transforms, and the use of eigenvalues to solve linear systems. Generation of exact solutions, approximate solutions, and graphs of solutions using MATLAB. Prerequisite: Mathematics 3 (completed with a grade of $C$ or higher). 3 hours lecture, 1.5 hours laboratory. AA/AS GE. Transfer: CSU, UC; IGTEC: Area 2
Degree Applicable, Credit.
Grading Option: GR
MATH 7 ELEMENTARY LINEAR ALGEBRA
An introduction to linear algebra including: techniques and theory needed to solve and classify systems of linear equations using Gaussian elimination and matrix algebra; properties of vectors in $n$-dimensions; generalized vector spaces, inner product spaces, basis, norms, orthogonality; eigenvalues, eigenspaces; and linear transformations. Selected applications of linear algebra, including the use of MATLAB" to solve problems involving advanced numerical computation. Prerequisite: Mathematics 2 (completed with a grade of " C " or higher). 3 hours lecture, 1.5 hours laboratory. Transfer: CSU, UC; CSU GE: B4; IGTEC: Area 2 Degree Applicable, Credit.

Grading Option: GR
MATH 10 DISCRETE MATHEMATICS
4 UNITS
Designed for majors in mathematics and computer science, this course provides an introduction to discrete mathematical structures and their applications, including: Propositional and predicate logic; rules of inference; quantifiers; elements of integer number theory; set theory; methods of proof; induction; combinatorics and discrete probability; functions and relations; recursive definitions and recurrence relations; elements of graph theory and trees. Applications include: analysis of algorithms, Boolean algebras and digital logic circuits. Prerequisite: Mathematics 1 (completed with a grade of " $C$ " or higher). 4 hours lecture, 1 hour laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: B4; IGETC: Area 2 Degree Applicable, Credit Grading Option: GR

MATH 20 PRE-CALCULUS MATHEMATICS
5 UNITS
Rational and polynomial functions with emphasis on logical development and graphing. Solution of polynomial equations and inequalities, graphing conic sections, mathematical induction, binomial theorem; strengthening of skills in working with exponential, logarithmic, and trigonometric functions, equations, graphs, and applications. Prerequisite: Mathematics 36 or 36 Y or Mathematics 38 (completed with a grade of " $C$ " or higher) or an appropriate skill level demonstrated through the Mathematics assessment process. 5 hours lecture, 1 hour laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B4; IGETC: Area 2. *MATH 20 and 45 combined: max UC credit, one course.
Degree Applicable, Credit Grading Option: GR

## MATH 33 FINITE MATHEMATICS

4 UNITS
Straight lines, systems of linear equations, matrices, systems of linear inequalities, linear programming, mathematics of finance, sets and Venn diagrams, combinatorial techniques and an introduction to probability. Applications in business, economics and social sciences. Prerequisite: Mathematics 55 or 55B or 55 Y (completed with a grade of "C" or higher) or an appropriate skill level as demonstrated through the mathematics assessment process. 4 hours lecture, 1 hour laboratory.

AA/AS GE. Transfer: CSU, UC*; CSU GE: B4; IGETC: Area 2. *MATH 1, 2 and 33, 34 combined: max UC credit, one series.
Degree Applicable, Credit
Grading Option: GR

## MATH 34 CALCULUS FOR BUSINESS

 AND SOCIAL SCIENCES5 UNITS
Functions and their graphs; limits of functions; differential and integral calculus of algebraic, exponential and logarithmic functions. Applications in business, economics, and social sciences and use of graphing calculators. Partial derivatives and the method of LaGrange multipliers. Prerequisite: Mathematics 55 or 55B or $55 Y$ (completed with a grade of "C" or higher) or an appropriate skill level demonstrated through the Mathematics Assessment process. 5 hours lecture, 1 hour laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B4; IGETC: Area 2. *MATH 1, 2 and 33, 34 combined: max UC credit, one series.
Degree Applicable, Credit
Grading Option: GR

## MATH 38 TRIGONOMETRY WITH GEOMETRY 5 UNITS

Plane trigonometry with topics from plane geometry. Geometry includes properties of polygons, parallel and perpendicular lines, congruence and similarity, area, volumes and surface area. Trigonometry includes definitions of the trigonometric functions, graphs of the trigonometric functions, trigonometric equations and inverse trigonometric functions, identities, polar coordinates and complex numbers. Applications involving right triangles, law of sines and law of cosines. Prerequisite: Mathematics 55 or 55B or 55 Y (completed with a grade of " $C$ " or higher) or an appropriate skill level demonstrated through the Mathematics assessment process. May not receive credit if Mathematics 36 or $36 Y$ have been completed. 5 hours lecture, 1 hour laboratory. AA/AS GE. Transfer: CSU; CSU GE: B4.
Degree Applicable, Credit
Grading Option: GR

## MATH 42 INTRODUCTION TO PROBABILITY AND STATISTICS

3 UNITS
Descriptive statistics, including measures of central tendency and dispersion; elements of probability; tests of statistical hypotheses; correlation and regression; applications in various fields. Introduction to the use of a computer software package to complete both descriptive and inferential statistics problems. Prerequisite: Mathematics 55 or 55B or $55 Y$ (completed with a grade of " $C$ " or higher) or an appropriate skill level demonstrated through the Mathematics assessment process.
3 hours lecture, 1 hour laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B4; IGETC: Area 2. *UC credit granted for MATH 41 or 44 or 42A and 42B combined.
Degree Applicable, Credit
Grading Option: GR
MATH 44 STATISTICS AND PROBABILITY 5 UNITS
Descriptive Statistics, measures of central tendency, dispersion and position; elements of probability; confidence intervals; hypothesis tests; two-population comparisons; correlation and regression; goodness of fit, analysis of variance, non-parametric tests; and application in various fields. Introduction to the use of a computer software package to complete both descriptive and inferential statistics problems. Prerequisite: Mathematics 55, 55B or 55 Y (completed with a grade of "C" or higher) or an appropriate skill level demonstrated through the Mathematics assessment process. 5 hours lecture, 1 hour laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B4; IGETC: Area 2. *UC credit granted for MATH 41 or 44 or 42A and 42B combined. Degree Applicable, Credit

Grading Option: GR

## MATH 45 COLLEGE ALGEBRA

3 UNITS
Polynomial, rational, exponential, and logarithmic functions; theory of equations; matrices; translation of functions; sequences, series and the binomial theorem. Prerequisite: Mathematics 55 or Mathematics 55B or Mathematics 55Y (completed with a grade of " $C$ " or higher) or an appropriate skill level demonstrated through the Mathematics placement process. 3 hours lecture, 1 hour laboratory. AA/AS GE.

Transfer: CSU, UC*; CSU GE: B4; IGETC: Area 2. *MATH 45 and 20 combined, max UC credit, one course.
Degree Applicable, Credit
Grading Option: GR

## MATH 55 INTERMEDIATE ALGEBRA

5 UNITS
Intermediate algebra concepts, including: An introduction to functions; linear and absolute value functions; absolute value equations and inequalities; compound linear inequalities; systems of linear equations in three variables and matrix solutions; rational expressions, functions and equations; radical expressions, functions and equations; rational exponents; complex numbers; quadratic functions and equations; inverse of a function; exponential and logarithmic functions; properties of logarithms; exponential and logarithmic equations; conic sections; and systems of non-linear equations and inequalities. Multiple representations, applications and modeling with functions are emphasized throughout. Prerequisite: Math 65 or 65B or 65 Y (completed with a grade of "C" or higher) or an appropriate skill level demonstrated through the Mathematics assessment process. May not receive credit if Mathematics 55B or 55Y have been completed. 5 lecture hours, laboratory hour. AA/AS GE.
Degree Applicable, Credit Grading Option: OP

MATH 55A INTERMEDIATE ALGEBRA A
2.5 UNITS

Concepts covered in the first half of Mathematics 55 Intermediate Algebra, including: An introduction to functions; linear and absolute value functions; absolute value equations and inequalities; compound linear inequalities; rational expressions, functions and equations; radical expressions, functions and equations; rational exponents; and complex numbers. Multiple representations, applications and modeling with functions are emphasized throughout. Prerequisite: Math 65 or 65 B or 65 Y (completed with a grade of " C " or higher) or an appropriate skill level demonstrated through the Mathematics assessment process. May not receive credit if Mathematics 55 or 55 X have been completed. 2.5 hours lecture, 1 hour laboratory. AA/AS GE.
Degree Applicable, Credit
Grading Option: OP

## MATH 55B INTERMEDIATE ALGEBRA B

2.5 UNITS

Concepts covered in the second half of Mathematics 55 Intermediate Algebra, including: systems of linear equations in three variables and matrix solutions; inverse of a function; exponential and logarithmic functions; properties of logarithms; exponential and logarithmic equations; conic sections; systems on non-linear equations and inequalities. Multiple representations, applications and modeling with functions are emphasized throughout. Prerequisite: Math 55A or 55X (completed with a grade of " C " or higher). May not receive credit if Mathematics 55 or 55 Y have been completed. 2.5 hours lecture, 1 hour laboratoryAA/AS GE.
Degree Applicable, Credit
Grading Option: OP

MATH 65 ELEMENTARY ALGEBRA
Elementary algebra concepts, including: real numbers and their properties; algebraic expressions; integer exponents; operations with polynomial expressions; linear and quadratic equations; linear inequalities and set notation; graphs of linear equations and inequalities; slope; systems of linear equations and inequalities; and, an introduction to rational expressions and modeling with linear and quadratic equations. Prerequisite: Mathematics 106 or 107 or 107Y (completed with a grade of " $C$ " or higher) or an appropriate skill level demonstrated through the Mathematics assessment process. May not receive credit if Mathematics 65B or 65 Y have been completed. 5 hours lecture, 1 hour laboratory. AA/AS GE
Degree Applicable, Credit. Does not meet math proficiency requirement for graduation.

Grading Option: OP
MATH 65A ELEMENTARY ALGEBRA A
2.5 UNITS

Concepts covered in the first half of Mathematics 65 Elementary Algebra, including: real numbers and their properties; algebraic
expressions; linear equations; linear inequalities and set notation; graphs of linear equations and inequalities in two variables; slope; systems of linear equations and inequalities; and, an introduction to modeling with linear equations. This course is designed for those with no previous algebra background. Prerequisite: Mathematics 106 or 107 or 107Y (completed with a grade of "C" or higher) or an appropriate skill level demonstrated through the Mathematics assessment process. May not receive credit if Mathematics 65 or 65X have been completed. 2.5 hours lecture, 1 hour laboratory.

Degree Applicable, Credit. Does not meet math proficiency requirement for graduation.

Grading Option: P/N

## MATH 65B ELEMENTARY ALGEBRA B

2.5 UNITS

Concepts covered in the second half of Mathematics 65 Elementary Algebra, including: integer exponents; operations with polynomial expressions; factoring techniques; quadratic equations and modeling with quadratic equations; and an introduction to rational expressions. Prerequisite: Mathematics 65A or 65X (completed with a grade of "C" or higher). May not receive credit if Mathematics 65 or 65 Y have been completed. 2.5 hours lecture, 1 hour laboratory. AA/AS GE.
Degree Applicable, Credit. Does not meet math proficiency requirement for graduation.

Grading Option: P/N

MATH 71 APPLIED MATHEMATICS FOR TECHNICIANS 3 UNITS
This course provides a survey of mathematical techniques used in the technical trades including: Arithmetic, both by-hand and with calculator; ratios, rates and proportions; metric and U.S. systems of measurements; an introduction to linear equations; scientific notation; plane and solid geometry; and, triangle trigonometry. There is an emphasis on practical applications related to a variety of technical fields throughout. 3 hours lecture. AA/AS GE. (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP

## MATH 71A APPLIED MATHEMATICS FOR

 TECHNICIANS A1.5 UNITS

This course provides a survey of mathematical techniques used in the technical trades including: Arithmetic, both by-hand and with calculator; ratios, rates and proportions; metric and U.S. systems of measurement. There is an emphasis on practical applications related to a variety of technical fields throughout. 1.5 hours lecture. AA/AS GE (if MATH 71A + 71B completed)
Degree Applicable, Credit
Grading Option: OP

## MATH 71B APPLIED MATHEMATICS FOR

 TECHNICIANS B1.5 UNITS

This course provides a survey of mathematical techniques used in the technical trades including: an introduction to linear equations; scientific notation; plane and solid geometry; and, triangle trigonometry. There is an emphasis on practical applications related to a variety of technical fields throughout. Prerequisite: Mathematics 71A or 71X (completed with a grade of " $C$ " or higher). May not receive credit if Mathematics 71 or $71 Y$ or INDT 74 have been completed.
1.5 lecture hours. AA/AS GE (if MATH 71A + 71B completed)

Degree Applicable, Credit
Grading Option: OP

MATH 100 PRE-ALGEBRA AND ALGEBRA REVIEW 1 UNITS
Review basic mathematics and algebra content prior to taking the assessment exam for placement into a mathematics course or as a refresher prior to taking a mathematics course after a significant amount of time has passed since taking the prerequisite course or assessment. The course will consist of small group lecture and/or independent study using a computer program to review and refine those concepts as needed by each student. 3 hours laboratory. (May be taken 2 times)
Non-degree Applicable, Credit
Grading Option: $\mathrm{P} / \mathrm{N}$

## MATH 107 PRE-ALGEBRA <br> 4 UNITS

This course is intended to serve as a bridge between arithmetic and Elementary Algebra. It includes a review of arithmetic, operations involving signed integers, fractions and decimals, variables and variable expressions, simple linear equations and their graphs, percent and proportion, introduction to statistics, geometry and measurement, and application problems. 3 hours lecture, 3 hours laboratory.
Non-Degree Applicable, Credit Grading Option: OP
MATH 107A PRE-ALGEBRA A
2 UNITS
This course is intended to serve as a bridge between arithmetic and Elementary Algebra. It includes a review of concepts covered in the first half of Mathematics 107 Pre-Algebra, including: review of arithmetic, operations involving signed integers, fractions, variables and variable expressions, and simple linear equations. 1.5 hours lecture, 1.5 hours laboratory.

Non-degree Applicable, Credit Grading Option: P/N

## MATH 107B PRE-ALGEBRA B

2 UNITS
This course is intended to serve as a bridge between arithmetic and Elementary Algebra. It includes a review of concepts covered in the second half of Mathematics 107 Pre-Algebra, including: decimals, graphs of simple linear equations, percent and proportion, introduction to statistics, geometry and measurement, and application problems. Prerequisite: Mathematics 107A or 107X (completed with a grade of "C" or higher). May not receive credit if Mathematics 107 or 107Y has been completed. 1.5 hours lecture, 1.5 hours laboratory. Non-degree Applicable, Credit

Grading Option: $\mathrm{P} / \mathrm{N}$

## MICROBIOLOGY

Microbiology 1 is one of many courses offered by the Biology Department. It fulfills various degree, certificate, transfer, and/or career requirements. For more details about how Microbiology 1 fits into different pathways, please see "Biology" in the catalog, page 60.

## MICR 1 MICROBIOLOGY

Bacteria, fungi, protozoans, parasites, and viruses with an emphasis on their relationship to humans. Cultivation, control, metabolism, body's defense against disease, microbial genetics, laboratory tests, and contemporary diseases are discussed. Methods used in the laboratory include staining, investigation, cultivation, identification of unknowns, and sensitivity testing. Prerequisite: Biology 31 and Chemistry 30A or Chemistry 1A (both completed with a grade of " $C$ " or higher). Strongly recommended: Anatomy 1, Eligibility for English 1A or 52A. 3 hours lecture, 6 hours laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: B2 \& B3; IGETC: 5B (with lab).
Degree Applicable, Credit
Grading Option: GR

# MUSIC 

$\theta_{\text {degree }} \theta_{\text {certificate }}$

## About the Program

The Music major offers a secure foundation for further study in music. Courses in the Music Department are designed to fulfill the needs of music majors, professional musicians, and those whose interest is avocational or recreational. Students are encouraged to contact a counselor and consult the Catalog for guidance when planning to transfer to a four-year institution in this major.

## Degrees/Certificates

- Degree:
- AA - Music
- Certificate of Achievement
- Teaching Beginning Piano
- Teaching Intermediate Piano


## AA - Music

## Freshman Year

Music 8A (Harmony and Musicianship I)...................................................... 4
Music 8B (Harmony and Musicianship II)......................................................... 4
Music 21A (Beginning Piano).......................................................................... 1
Music 21B (Beginning Piano-Intermediate) .................................................... 1
Music Electives*................................................................................................. 2
Performance Electives** ................................................................................-. ${ }^{2-3}$
General Education Courses
Sophomore Year
Music 10A (Chromatic Harmony and Musicianship)................................... 4
Music 10B (Post-Romantic and Twentieth Century Harmony)................. 4
Music Electives*................................................................................................. 2
Performance Electives**.................................................................................-..................
General Education Courses
Total units required. $\qquad$

## Music Electives*

Select course(s) from the following, for a minimum of 4 units:
Music 1 (Introduction to Music)
Music 23A (Elementary Voice I)
Music 23B (Elementary Voice II)
Music 30 (Study of Guitar)
Music 31 (Study of Piano)
Music 33 (Study of Voice)
Music 38 (Individual Study)
Music 39 (Music Theater Workshop)
Performance Electives**
Select course(s) from the following, for a minimum of 4 units:
Music 12 (College Band)
Music 14 (Jazz Ensemble)
Music 15 (Jazz Band)
Music 16 (Orchestra)
Music 44 (Concert Choir)
Music 45 (Chamber Choir)
Music 46A (Beginning Jazz Choir)
Music 46B (Advanced Jazz Choir)
Certificate of AchievementTeaching Beginning Piano
Music 25 (Teaching Beginning Piano) .....  2
Music 26 (Methods and Materials for Piano Teachers). .....
Music 8A (Harmony and Musicianship I). .....  4
Music 8B (Harmony and Musicianship II) .....  4
Music 38* (Individual Study). .....  2
Total units required .....  14
*Two semesters required
Certificate of Achievement
Teaching Intermediate Piano
Music 27 (Teaching Intermediate Piano) .....  2
Music 28 (Keyboard Skills) .....  1
Music 10A (Chromatic Harmony and Musicianship) .....  4
Music 10B (Post-Romantic and 20th Century Harmony). .....  4
Music 1 (Introduction to Music) .....  3
Music 38* (Individual Study) .....  2
Total units required .....  16
*Two semesters required for a total of 4 units

## MUSIC (MUS)

MUS 1 INTRODUCTION TO MUSIC
Music for enjoyment and understanding through informed listening, analysis, evaluation and discernment of musical elements, forms, and repertoire. Attendance at concerts and listening to a variety of music may be required. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: Cl; IGETC: 3A Degree Applicable, Credit

Grading Option: OP

MUS 4 JAZZ IN AMERICAN CULTURE 3 UNITS
History, trends and influences of the phenomenon of jazz through integration of the cultures of (but not limited to) African-American, European-American and the Latin-American communities. Required listening, reading and concert attendance will guide the student to value jazz as a form of self expression and improve the ability to listen and understand the various eras in jazz from pre-Dixieland to present day. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: C1; IGETC: 3A Degree Applicable, Credit

Grading Option: OP
MUS 5 AMERICAN CULTURES IN MUSIC

## 3 UNITS

Music in twentieth century United States through the study of contributions of three selected groups from the following: AfricanAmericans, Latin-Americans, Asian-Americans, European-Americans, and Native Americans. Emphasis on understanding diverse styles, and on integrating these styles into American music. Concert, religious, and folkpop music will be included. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: C1; IGETC: 3A
Degree Applicable, Credit
Grading Option: OP

## MUS 6 BASIC MUSIC SKILLS

2 UNITS
Essentials of music through notation, times elements, melody, harmony, and tonality, texture, dynamics and knowledge of the keyboard. Sight singing and ear training. 2 hours lecture. Transfer: CSU, UC; CSU GE: Cl Degree Applicable, Credit

Grading Option: OP
MUS 8A HARMONY AND MUSICIANSHIP I
4 UNITS
Elements of diatonic harmony through part writing and ear training exercises as typified by musical practice from 1600 to the present. Includes keys, modes, scales, tonality, intervals, solfeggio, consonance/
dissonance, rhythmic organization, chord structure, chord and interval recognition, melodic and rhythmic dictation, voice leading principles, non-chord tones, four-part voice leading with selected primary and secondary chords, and figured bass realization. Strongly recommended: Music 6 or equivalent skills. 3 hours lecture, 2 hours laboratory. Transfer: CSU, UC; CSU GE: C1; IGETC: 3A
Degree Applicable, Credit Grading Option: OP
MUS 8B HARMONY AND MUSICIANSHIP II 4 UNITS
Continues diatonic harmony through part writing and ear training exercises as typified by musical practice from 1600 to the present, continues solfeggio, chord recognition, melodic and rhythmic dictation, diatonic four-part voice leading, and figured bass realization. Introduces harmonic dictation, cadential elaboration, non-dominant seventh chords, and tonicization/modulation to the dominant. Prerequisite: Music 8A (completed with a grade of "C" or higher). 3 hours lecture, 2 hours laboratory. Transfer: CSU, UC; CSU GE: Cl; IGETC: 3A Degree Applicable, Credit

Grading Option: OP
MUS 10A CHROMATIC HARMONY AND MUSICIANSHIP 4 UNITS
Elements of both diatonic and chromatic harmony through part writing and ear training exercises as typified by musical practice from 1600 to the present. Continues solfeggio; chord recognition; melodic, rhythmic, and harmonic dictation; and figured bass realization. Introduces chorale dictation, chromatic four-part voice leading, chord progression and succession techniques, non-chord tones using figuration and rhythmic displacement, and mode mixture. Prerequisite: Music 8B (completed with a grade of " $C$ " or higher). 3 hours lecture, 2 hours laboratory. Transfer: CSU, UC Degree Applicable, Credit

Grading Option: OP

## MUS 10B POST ROMANTIC AND 20TH CENTURY HARMONY

4 UNITS
Continues chromatic harmony through part writing and ear training exercises as typified by musical practice from 1600 to the present. Furthers study in solfeggio; melodic, rhythmic, and chorale dictation; chromatic four-part voice leading; figured bass realization; and chord succession and progression techniques. Introduces secondary dominants; diatonic modulation, extended chords; Neapolitan, augmented sixth, augmented, and altered dominant chords; chromatic embellishing chords; and chromaticism in larger contexts. Prerequisite: Music 10A (completed with a grade of " C " or higher). Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP
MUS 12 WIND ENSEMBLE
1 UNIT
Wind ensemble repertoire of all styles and periods. Emphasis on group participation and public performance. Attendance at all scheduled performances required. Enrollment is subject to a standardized audition demonstrating musical ability and technical proficiency suitable to the course level. 3 hours laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: Cl Degree Applicable, Credit Grading Option: OP

MUS 14 JAZZ ENSEMBLE 1 UNIT
Reading, preparation and performance of contemporary Jazz music. Opportunity to apply improvisation techniques in a group setting. 3 hours laboratory. AA/AS GE. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

MUS 15 JAZZ BAND
1 UNIT
Reading, preparation and performance of contemporary Jazz music, arranged for Jazz band. Opportunities to arrange and compose for the band as well as to conduct. Opportunity to apply improvisation techniques in a group setting. 3 hours laboratory. Transfer: CSU, UC (May be taken four times)
Degree Applicable, Credit
Grading Option: OP
MUS 16 COLLEGE ORCHESTRA 1 UNIT
Survey of string and symphonic orchestra literature through rehearsal and performance of selected works. Emphasis on the development of
ensemble playing and technique. Designed for those with proficiency in playing an orchestral instrument. 3 hours laboratory. Transfer: CSU, UC (May be taken four times)
Degree Applicable, Credit
Grading Option: OP
MUS 20 ELEMENTARY GUITAR
1 UNIT
Beginning guitar using a combination of folk and classic approaches to playing technique, utilizing basic scales and chords in first position, and music notation. Strongly recommended: Music 6.3 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP
MUS 21A BEGINNING PIANO 1 UNIT
Group instruction in piano with emphasis on developing technique, reading music, and performing. Strongly Recommended: Music 6.3 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP
MUS 21B BEGINNING PIANO-INTERMEDIATE 1 UNIT
Development of skills learned in Music 21 Emphasis on further development of technique and performance. Prerequisite: Music 21A (completed with a grade of "C" or higher). 3 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP
MUS 23A ELEMENTARY VOICE I 1 UNIT
Group singing with emphasis on solo performance. Ton e production, breathing, diction, and interpretation in regard to song literature.
Strongly recommended: Music 6.3 hours laboratory. Transfer: CSU, UC Degree Applicable, Credit

Grading Option: OP
MUS 23B ELEMENTARY VOICE II
1 UNIT
Development of skills learned in Music 23A. Emphasis on further development of vocal production and performance. Prerequisite: Music 23A (completed with a grade of " $C$ " or higher). 3 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit Grading Option: OP

MUS 25 TEACHING BEGINNING PIANO
2 UNITS
Principles of successful piano teaching with emphasis upon development of technique and reading ability in beginner level students; private and group piano teaching methods; personal development as teacher and musician. Observation of piano lessons or classes and supervised practice teaching of private or class piano students may be required. Intended for pianists with intermediate or advanced skills. Strongly recommended: Music 21B 2 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
MUS 26 METHODS AND MATERIALS FOR PIANO TEACHERS

2 UNITS
Examination of various methods in print for use in teaching piano; setting up a teaching studio and maintaining the business; finding and selecting supplementary literature; preparing for recitals and other special events. Intended for pianists with intermediate or advanced skills who are engaged in the teaching of piano or who would like to prepare to teach. Strongly recommended: Music 21B. 2 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

MUS 27 TEACHING INTERMEDIATE PIANO 2 UNITS
Principles of successful piano teaching with emphasis upon continued development of technique and reading ability in intermediate level students; private and group piano teaching methods; selection of intermediate literature; Baroque, Classical, Romantic and 20th Century styles: studio organization and personal development as teacher and musician. Observation of piano lessons or classes and supervised practice teaching of private or class piano students may be required. Strongly recommended: Music 21B. 2 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

MUS 28 KEYBOARD SKILLS 1 UNIT
Emphasis on correct harmonization of melodies with various styles of piano accompaniments; transposition; improvisation; modulation; sight reading; principles of accompanying soloists and groups; ensemble playing; playing by ear. Frequent solo and ensemble performances in class. Intended for piano teachers or classroom music teachers. Strongly recommended: Music 21B. 3 hours laboratory. Transfer: CSU (May be taken two times)
Degree Applicable, Credit Grading Option: OP

MUS 30 STUDY OF GUITAR 1 UNIT
Development of skills and knowledge from Music 20. Emphasis on playing techniques and performance. Designed for the intermediate and advanced performer. Prerequisite: Music 20 (completed with a grade of "C" or higher). 3 hours laboratory. Transfer: CSU, UC; (May be taken four times)
Degree Applicable, Credit Grading Option: OP
MUS 31 STUDY OF PIANO 1 UNIT
Development of functional piano skill. Designed for knowledge and skill of intermediate or advanced level. Prerequisite: Music 21B (completed with a grade of "C" or higher). 3 hours laboratory. Transfer: CSU, UC; (May be taken four times)
Degree Applicable, Credit Grading Option: OP
MUS 33 STUDY OF VOICE
1 UNIT
Individual improvement of the technical facility, tone quality, and range of the singing voice in solo performances; designed to extend knowledge of the literature in general and help acquire a basic repertory. Required for voice majors. Prerequisite: Music 23B (completed with a grade of "C" or higher). 3 hours laboratory. Transfer: CSU, UC; (May be taken four times)
Degree Applicable, Credit Grading Option: OP

## MUS 38 INDIVIDUAL STUDY 1 UNIT

Specialized study of voice or instrument. Designed for music major or minor to increase opportunities in individualized study of voice or instrument. 2 hours. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## MUS 39 MUSICAL THEATER WORKSHOP

1 UNIT
Training in performance skills for musical theater, with emphasis on vocal technique. Corequisite: Theater Arts 39. 2 hours. Transfer: CSU, UC (May be taken 4 times)
Degree Applicable, Credit Grading Option: OP
MUS 40 PASSPORT TO MUSIC 1-3 UNITS
Supervised participation in scheduled performances of the music department in performer, accompanist, and or/or technical assistant capacity. Hour value to be determined by the instructor, after audition, based upon the scope of the performance or technical assignment. Enrollment is for the duration of one particular performance, workshop, or concert tour. 1-6 hours. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## MUS 42 VOCAL REPERTOIRE

1 UNIT
Vocal repertoire with emphasis on solo performance. Includes vocal solo literature of the Baroque, Classical, Romantic, and Contemporary periods in French, German, English, Italian, and Spanish. Prerequisite: Music 23B or Music 33 (may be taken concurrently). 3 hours laboratory. Transfer: CSU, UC; (May be taken four times)
Degree Applicable, Credit Grading Option: OP
MUS 43 VOCAL ENSEMBLE
1 UNIT
Instruction for the advanced singer; an opportunity to explore and perform vocal chamber music. 2 hours. AA/AS GE. Transfer: CSU, UC. (May be taken 3 times)
Degree Applicable, Credit
Grading Option: GR

MUS 44 CONCERT CHOIR 1 UNIT
Development of vocal and musical ability to interpret and perform the highest caliber of choral literature. Designed for those with experience and/or ability in choral singing. 3 hours laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: Cl (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

MUS 45 CHAMBER CHOIR
1 UNIT
Development of sufficient vocal and music ability to interpret and perform a variety of vocal chamber music. Designed for the advanced singer. 3 hours laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: C1 (May be taken four times)
Degree Applicable, Credit Grading Option: OP

MUS 46A BEGINNING JAZZ CHOIR 1 UNIT
The various aspects of performing in a vocal jazz ensemble. Emphasis on developing the rudiments of vocal jazz technique. Strongly recommended: Music 6.3 hours laboratory. AA/AS GE. Transfer: CSU, UC (May be taken four times)
Degree Applicable, Credit Grading Option: OP
MUS 46B ADVANCED JAZZ CHOIR
1 UNIT
The various aspects of performing in a vocal jazz ensemble. Emphasis on developing advanced vocal jazz technique. Prerequisite: Music 46A (completed with a grade of "C" or higher). 3 hours laboratory. AA/AS GE. Transfer: CSU, UC (May be taken four times)
Degree Applicable, Credit
Grading Option: OP

## MUS 47 COLLEGE PRODUCTIONS - MUSIC

1-5 UNITS
Participation in scheduled music productions. Includes music support for drama productions, college musicals, and other major performances. Enrollment is for the duration of the production. 3-15 laboratory hours. Transfer: CSU, UC (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## NUTRITION

## About the Program

The Nutrition department offers a variety of courses that align with multiple degree pathways. The courses are specifically designed to meet the needs of students who are currently pursuing degrees in Nursing, Health Science, or Kinesiology. Courses also provide students with an introduction to the science of nutrition, which is particularly important for those planning to transfer to baccalaureate programs in Nutrition, Health Education, Public Health, or pre-medicine.

See also: Health, Physical Education

## NUTRITION (NUTR)

[^3]NUTR 3 NUTRITION FOR HEALTH AND WELLNESS 3 UNITS
Optimal diet and food choices to promote health, and prevent disease. Role of nutrition and fitness in health. Impact of harmful eating patterns. Evaluation of diets and nutrition information. Issues of current interest. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

NUTR 5 NUTRITION FOR PERFORMANCE AND SPORT 3 UNITS
Students will study the role of nutrition in sports, performance and physical fitness. Optimal food, nutrient, and activity choices to maximize athletic performance and support health will be addressed. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## OCCUPATIONAL SAFETY AND HEALTH

DEGREE CERTIFICATE

## About the Program

The Occupational Safety and Health worker implements mandated health and safety regulations in an effort to control occupational accidents and diseases, property losses and injuries due to unsafe working conditions. The scope of this position includes the identification of physical hazards and the design and implementation of remediation, the evaluation of potential toxic agent risk to the employer, the development of safety management and employee training/management programs.

## Degrees/Certificates

- Degree:
- AS - Occupational Safety and Health
- Certificate of Achievement:
- Occupational Safety and Health*


## Career Opportunities

The safety and health worker may specialize in fire and property, chemical and radiological safety, emergency response, general workplace safety, transportation, construction, systems or product design. The Associate in Science degree and the Certificate of Completion in Occupational Safety and Health are designed for direct job entry and/or career enhancement. Continuing Education Units for Registered Nurses and Licensed Vocational Nurses may be awarded for certain coursework upon application. Completion of the degree or the certificate may be used to provide work experience credit toward OHST (Occupational Health and Safety Technician) certification requirements. Completion of the degree may be used to provide work experience credit toward CSP (Certified Safety Professional) certification requirements. Students interested in work experience credit toward OHST or CSP certification or in C.E.Units for RNs and LVNs should consult their instructor.

## Transferability

While units in the program are transferable to many institutions, students should consult a counselor for information.

# AS - Occupational Safety and Health 

Freshman Year
Occupational Safety and Health 50 (Introduction to OccupationaSafety and Health).
$\qquad$
Occupational Safety and Health 67 (Comprehensive RegulatoryRequirements and Human Factors)..3
Chemistry 1A (General College Chemistry) or Chemistry 30A (Introductory and Applied Chemistry).. ..... 4-5
Computer Information Systems 50 (Intro to Computing and Information Technology) .....  3
Fire Service Technology 54 .....  3
Electives* ..... 3-5General education courses§

Sophomore Year
Occupational Safety and Health 60
(Elements of Industrial Hygiene)...
Occupational Safety and Health 62 (Physical Hazards) .....  3
Physics 2A (Introduction to Physics) or Physics 10 (Descriptive Physics). ..... 3-4
Radiation Safety 40ABC (Radiation Safety) .....  4
Psychology 1 (General Psychology) .....  3
Electives*. ..... 3-5
General education courses§§Program-Based General Education Requirement:Ecology 10 (Humans and the Environment)

Total units required. 60

## *Electives

Select one course from Group A and one course from Group B, for a minimum of 6 units:

## Group A

Chemistry 1B (General College Chemistry)
Chemistry 30B (Introductory and Applied Chemistry)
Mathematics 42A (Introduction to Probability and Statistics)

## Group B

Anatomy 1 (General Human Anatomy)
Biology 50 (Anatomy and Physiology)
Fire Service Technology 52 (Fire Fighter Safety and Public Education) Physiology 1 (Introduction to Human Physiology)

## Certificate of Achievement*

Occupational Safety and Health 50 (Introduction to Occupational Safety and Health).. 3

Occupational Safety and Health 60
$\qquad$
Occupational Safety and Health 62 (Physical Hazards)3
Occupational Safety and Health 67 (Comprehensive Regulatory .....  3Requirements and Human Factors)..
Electives*. ..... 3-4
Total units required. ..... 15-16

## *Electives

Select from the following for a minimum of 3 units:
Chemistry 30A (Introductory and Applied Chemistry) or equivalent Fire Service Technology 52 (Fire Fighter Safety and Public Education) Physics 10 (Descriptive Physics) or equivalent Radiation Safety 40ABC (Radiation Safety)
*Approval by State Chancellor's Office is pending.

## OCCUPATIONAL SAFETY AND HEALTH (OSH)

## OSH 50 INTRODUCTION TO OCCUPATIONAL SAFETY AND HEALTH

3 UNITS
Introduction to the principles and techniques of occupational safety and health. Includes historical evolution, professional make-up of the occupational and safety specialist, and analysis and implementation of a typical safety program. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit Grading Option: GR

## OSH 60 ELEMENTS OF INDUSTRIAL HYGIENE 3 UNITS

Introduction to the major subject areas of Industrial Hygiene. This includes anticipation, recognition, evaluation, and control of workplace hazards; effects of toxic agents on the body; measurement of these agents; general methods for their control; as well as State and Federal regulatory requirements. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR
OSH 62 PHYSICAL HAZARDS 3 UNITS
Examination of physical hazards in the work environment and methods of control. Includes hazards associated with human factors, layout and planning, machine guarding, electrical safety, materials handling, rigging, conveyors, power tools, personal protective equipment, compressed gases, illumination, and working surfaces. Emphasis on methods for safety observation and inspection. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## OSH 67 COMPREHENSIVE REGULATORY

 REQUIREMENTS AND HUMAN FACTORS 3 UNITSState and federal Occupational Safety and Health Acts, awareness of life safety, fire safety and building codes and standards, Workers' Compensation laws, and other regulations as they relate to occupational safety and health. Includes human factors in accident causation, behavioral stereotypes, human engineering, and man-machine trades and functional significance. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit Grading Option: GR

## PHILOSOPHY

CERTIFICATE

See also: Humanities, Religious Studies

## PHILOSOPHY (PHIL)

## PHIL 1 GOD, NATURE, HUMAN NATURE <br> 3 UNITS

Nature and range of philosophical inquiry in relation to everyday problems of humans as individuals, as citizens, as existing in nature, and as creators of works of the arts and of the spirit. Analysis of primary philosophical documents that concentrate on these broad areas of human concern. Introduction to philosophy by the philosophers own works, their methods of procedure and inquiry; attention given to the development of skills for reading, analyzing, and pursuing philosophical argument. NOTE: Philosophy 2, 4 and 25 are also introductory courses and may be taken before Philosophy 1 if a more detailed examination of ethical problems, the theory of knowledge, or political philosophy is desired. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: C2; IGETC: 3B
Degree Applicable, Credit
Grading Option: GR

## PHIL 2 INTRODUCTION TO PHILOSOPHY: ETHICS 3 UNITS

Problems of good and evil, right and wrong, individual and/or social action; the principles, criteria or starting points for these issues and decisions as discussed and developed in great writings of the philosophical-literary tradition. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: C2; IGETC: 3B
Degree Applicable, Credit
Grading Option: GR
PHIL 3 AESTHETICS: PHILOSOPHY OF ART:
3 UNITS
An introduction to the philosophical analysis of art. Topics include the nature of art and beauty, the value of art, and philosophical methods of evaluating, critiquing, and drawing meaning from artistic works. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: C2; IGETC: 3B Degree Applicable, Credit

Grading Option: GR
PHIL 4 INTRODUCTION TO PHILOSOPHY: KNOWLEDGE 3 UNITS Systematic analysis of documents that constitute the major statements in the theory of knowledge. Investigation of the nature of knowledge, truth and belief. Emphasis placed on enabling students to analyze, critique and defend their own systems of beliefs. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: C2; IGETC: 3 B. Degree Applicable, Credit

Grading Option: GR
PHIL 5 FEMINIST PHILOSOPHY
3 UNITS
Introduction to feminist philosophical perspectives on such issues as gender, art, sexuality, knowledge, power, identity, popular culture, religion, ethics, and war. Emphasis placed on critical analysis as well as application to contemporary problems facing women today. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: C2; IGETC: 3B Degree Applicable, Credit

Grading Option: GR

## PHOTOGRAPHY

CERTIFICATE

## About the Program

The Las Positas College Photography program offers a broad array of course opportunities crossing a full spectrum of the imaging field.

The Certificate assures a solid grounding in photography fundamentals upon which to build one's further photographic field experiences.

Students become familiar with traditional film-based and digital (electronic) imaging technologies for making artistically rendered, captivating photographic images (both black \& white and color) used in all areas of visual communications and media. Students do hands-on work in the College's well-equipped studio, darkroom and computer laboratory. They master digital imaging in preparation for print and web distribution, create short programs in videography, and work with artificial lighting for portrait and commercial applications.

Most students take a history of photography class and a course concentrating on doing documentary work. Short-term courses on special photographic topics, each focusing on a unique aspect of photography or tutorial study with well-known professionals, are also offered on a regular basis.

## Degrees/Certificates

- Career Certificate
- Photography

See also: Art, Visual Communications
Career Certificate Photography ${ }^{\text {§ }}$
Photography 50 (Introduction to Photography) .....  3
Photography 51 (Individual Projects). .....  1
Photography 56 (Introduction to Digital Photography). .....  2
Photography 60 (Black \& White Materials and Processes) .....  3
Photography 64 (Artificial Light Photography). .....  3
Electives* ..... 4
Total units required ..... 16
*Electives:
Select from the following for a minimum of 4 units:
Photo 58 (Introduction to Videography)
Photography 66 (Digital Imaging)
Photography 67 (History of Photography) orPhoto 68 (Color Slide Photography)
Photography 72 (Documentary Photography)
Photography 99 (Photographic Topics)
§ This certificate is not transcripted. This group of courses provides industrybased professional development. Individual courses will appear on transcript See a counselor for further information.

## PHOTOGRAPHY (PHTO)

## PHTO 50 INTRODUCTION TO PHOTOGRAPHY 3 UNITS

Introduction to the history and development of photography, basic process, various types of cameras, materials, basic shooting, processing developing, and printing of photographs. 2 hours lecture, 4 hours laboratory. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

## PHTO 51 INDIVIDUAL PROJECTS <br> 1 UNIT

Individual projects in digital or film-based photography at the intermediate to advanced level. Development of knowledge and skills acquired in previous or current photography work with emphasis on current projects. Strongly recommended: Photography 50 or 56.4 hours laboratory. Transfer: CSU (May be taken three times)
Degree Applicable, Credit Grading Option: OP
PHTO 52 BEGINNING CAMERA USE 2 UNITS
Camera handling techniques, basic exposure principles, camera accessories, photographic composition, and slide presentation. 2 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: $\mathrm{P} / \mathrm{N}$
PHTO 56 INTRODUCTION TO DIGITAL PHOTOGRAPHY 1.5 UNITS Basics for the beginner's use of digital cameras, film and flatbed scanners; use of Adobe software for image adjustments. Exploration of digital photography compared with traditional photographic approaches and processes. Operation of Adobe digital imaging software for preparation of web site photos and print output, in both black and white and in color. 1 hourlecture. 2 hours laboratory. Transfer: CSU (May be taken two times)
Degree Applicable, Credit
Grading Option: OP
PHTO 57 INTERMEDIATE DIGITAL PHOTOGRAPHY 1.5 UNITS Digital photography; intermediate and advanced digital image capture assignments, camera use and digital manipulation using software such as Adobe Photoshop. Preparation of image files for display printing and use on the Web. Strongly recommended PHOT 56 or camera/ photography and Macintosh computer experience. 1 hour lecture, 2 hours laboratory. Transfer: CSU (May be taken two times)
Degree Applicable, Credit
Grading Option: OP

PHTO 58 INTRODUCTION TO VIDEOGRAPHY
2 UNITS
Introduction to the theory and practice of video production and desktop video editing: project production phases, time-based visual and sound design, digitizing footage, video output issues, working creatively in a collaborative environment, industry standards. 1 hour lecture, 4 hours laboratory. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: OP

## PHTO 60 BLACK AND WHITE MATERIALS AND PROCESSES

3 UNITS
Using exposure/development controls related to black and white negative materials. Development of intermediate/ advanced print making skills. Emphasis on visual and critical problems related to black and white photography. Prerequisite: Photography 50 (completed with a grade of "C" or higher). 2 hours lecture, 4 hours laboratory. Transfer: CSU, UC (May be taken 2 times)
Degree Applicable, Credit
Grading Option: GR
PHTO 64A ARTIFICIAL LIGHT PHOTOGRAPHY

## 3 UNITS

Photography using light sources selected and manipulated by the photographer. Use of light sources in a controlled situation to achieve technically accurate renditions of subject matter and to make successful visual statements. Lighting techniques for product, still life and portrait photography. Strongly recommended: Photography 50 or Photography 56. 2 hours lecture, 4 hours studio/laboratory. Transfer: CSU

Degree Applicable, Credit Grading Option: OP

PHTO 66 DIGITAL IMAGING
3 UNITS
Desktop digital imaging systems: scanning, camera and software. Methods and devices for image input, storage and output. Use of traditional photographic controls to enhance image quality in the digital medium. Designing an image for digital manipulation using software such as Photoshop and Live Picture. Strongly recommended: camera/photography and Macintosh computer experience, or Visual Communications 50. 2 hours lecture, 4 hours laboratory. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP
PHTO 67 HISTORY OF PHOTOGRAPHY
3 UNITS
A broad chronological survey of photography from its invention to the present. Considers the medium's dual role as technology and art. Addresses a multiplicity of photographic themes and purposes. Considers the intersections of photography and technology, history, art, and everyday life. 3 hours. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: GR
PHTO 68 COLOR FIELD PHOTOGRAPHY
2 UNITS
Use of either digital photography or color slide film to explore the solution of special technical and visual problems encountered in location shooting. 2 hours. AA/AS GE. Transfer: CSU, UC*; CSU GE: D7; IGETC: 4G. *MSCM 5 and 31 combined: max UC credit, one course. Degree Applicable, Credit Grading Option: GR

PHTO 69 INTERMEDIATE VIDEOGRAPHY
2 UNITS
Intermediate level digital video production to integrate and build upon prior video making skills. Emphasis is on creative expression, improving all production values and edited quality of finished presentation. Distribution of quality video piece to festivals and the web. Class is taught on the Macintosh computer platform. Strongly recommended Photography 58.1 hour lecture. 4 hours laboratory. Transfer: CSU (May be taken two times)
Degree Applicable, Credit
Grading Option: OP
PHTO 72 DOCUMENTARY PHOTOGRAPHY
2 UNITS
Photography exploring the documentary approach. Survey of photojournalism as a medium of mass communications. Understanding and applying photojournalistic and basic technical and visual skills in
the making of successful reportage photographs. Consideration of the work of major 20th century photojournalists. Strongly recommended: Camera/photography experience. 1 hour lecture, 4 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## PHTO 99 TOPICS IN PHOTOGRAPHY

0.5-3 UNITS

Workshops on a variety of specialized topics in photography or visual communications, which are relevant to a general audience and/or those working at the intermediate to advanced level. Development of knowledge and skills acquired in previous or current photography work with emphasis on professional approach, specific topic, media, or technique. Strongly recommended: Photography 60. 9 to 54 total hours. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: $\mathrm{P} / \mathrm{N}$

## PHYSICS

## DEGREE

## About the Program

The Physics program prepares students for transfer to four year institutions for continued study in the areas of physics, mathematics, engineering and other physics related fields. Physics includes a wide variety of disciplines and specializations, ranging from very practical, technology-driven fields to the study of the fundamental laws and structure of the universe. The program consists of three independent tracts of study. These are Calculus-based Physics, Algebra-based Physics, and Conceptual Physics.

## Degrees/Certificates

- Degree:
- AS - Physics


## Career Opportunities

Teaching, Research, Industrial Technology, Energy, Environmental Science, Finance, Consulting, Health Physics, Medical School, Cosmology, Bio-Physics. Additionally, numerous other career fields require very strong physics backgrounds.

## Transferability

The Physics degree includes courses typical of the lower division requirements of four-year institutions. General education requirements should be selected carefully based on the intended transfer institution.

## AS - Physics

## Freshman Year

Physics 8A (General Physics I).......................................................................... 5
Physics 8B (General Physics II)...................................................................... 5
Mathematics 1 (Analytic Geometry and Calculus I)................................... 5
Mathematics 2 (Analytic Geometry and Calculus II) ................................. 5
General Education Courses
Sophomore Year
Physics 8C (General Physics III) .5
Physics 8D (General Physics IV)3
Mathematics 3 (Multivariable Calculus). .....  5
Mathematics 5 (Ordinary Differential Equations). .....  3.5
General Education CoursesProgram Based General Education requirement: Mathematics 7Total units required60

## PHYSICS (PHYS)

PHYS 2A INTRODUCTION TO PHYSICS I 4 UNITS
Introduction to the major principles of classical mechanics and electricity using pre-calculus mathematics. Includes Newtonian mechanics, energy, Gravitation, fluids, thermodynamics, vibration waves, and electrostatics. Prerequisite: Mathematics 20, 36, or 38 (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B1, B3; IGETC: 5A \& Lab; *PHYS 2AB or 8ABCD combined: max UC credit, one series. Degree Applicable, Credit

Grading Option: GR

PHYS 2B INTRODUCTION TO PHYSICS II
4 UNITS
Electro-circuits, electromagnetic waves, optics and modern physics. Prerequisite: Physics 2A (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC*; CSU GE: B1, B3; IGETC: 5A \& Lab; *PHYS 2AB or 8ABCD combined: max UC credit, one series. Degree Applicable, Credit

Grading Option: GR

## PHYS 8A GENERAL PHYSICS I <br> 5 UNITS

Introduction to the principles of Newtonian Mechanics and analytical methods of physics using calculus as needed. Vectors, kinematics, dynamics, energy, momentum, rotation, Gravitation and fluid mechanics. Prerequisite: Mathematics 1 (completed with a grade of " C " or higher). 4 hours lecture, 3 hours laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B1, B3; IGETC: 5A \& Lab; *PHYS 2AB or 8ABCD combined: max UC credit, one series.
Degree Applicable, Credit Grading Option: GR

## PHYS 8B GENERAL PHYSICS II

5 UNITS
Introduction to electricity and magnetism, circuits, Maxwell's equations and electromagnetic waves. Prerequisites: Physics 8A (completed with grade of " C " or higher) and Mathematics 3 (May be taken concurrently). 4 hours lecture, 3 hours laboratory. Transfer: CSU, UC*; CSU GE: B1, B3; IGETC: 5A \& Lab; *PHYS 2AB or 8ABCD combined: max UC credit, one series.
Degree Applicable, Credit
Grading Option: GR

## PHYS 8C GENERAL PHYSICS III

5 UNITS
Introduction to oscillations, mechanical waves, thermodynamics, light and optics. Prererequisites: Physics 8A and Mathematics 2 (both completed with a grade of " $C$ " or higher). Strongly recommended: Physics 8B. 4 hours lecture, 3 hours laboratory. Transfer: CSU, UC*; CSU GE: B1, B3; IGETC: 5A \& Lab; *PHYS 2AB or 8ABCD combined: max UC credit, one series.
Degree Applicable, Credit Grading Option: GR

PHYS 8D GENERAL PHYSICS IV
3 UNITS
Introduction to relativity and modern physics, including: introduction to quantum theory; atomic, molecular, nuclear and particle physics; condensed matter physics; astrophysics and cosmology. Prerequisite: Physics 8B (completed with a grade of "C" or higher). 2 hours lecture, 3 hours laboratory. Transfer: CSU, UC*; CSU GE: B1, B3; IGETC: 5A \& Lab; *PHYS 2AB or 8ABCD combined: max UC credit, one series.
Degree Applicable, Credit
Grading Option: GR

Motion, gravitation, heat, light, sound, electricity, magnetism, atoms,
and nuclei. Present-day scientific problems and developments such as alternative energy sources, solar energy, nuclear power, lasers, relativity and black holes. Designed for non-majors in physical science. Strongly recommended: Mathematics 105 or Mathematics 105M or Mathematics 107. 3 hours lecture. AA/AS GE. Transfer: CSU, UC*; CSU GE: B1; IGETC: 5A; *No UC credit for PHYS 10/10L if taken after PHYS 2A or 8A.
Degree Applicable, Credit
Grading Option: GR

PHYS 10L DESCRIPTIVE PHYSICS LABORATORY
1 UNIT
Introduction to laboratory principles and techniques with emphasis on the basic concepts of physics such as mechanics, thermodynamics, energy, electricity, magnetism, and optics. Prerequisite: Physics 10 (may be taken concurrently). Strongly recommended: Math 107. 3 hours laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B3; IGETC: 5A Lab; *No UC credit for PHYS 10/10L if taken after PHYS 2A or 8A.
Degree Applicable, Credit
Grading Option: GR

## PHYSIOLOGY

Physiology 1 is one of many courses offered by the Biology Department. It fulfills various degree, certificate, transfer, and/or career requirements. For more details about how Physiology 1 fits into different pathways, please see "Biology" in the catalog, page 60.

See also: Anatomy, Biology, Microbiology

## PHYSIOLOGY (PHSI)

## PHSI 1 HUMAN PHYSIOLOGY

5 UNITS
Cellular and systemic body functions. Emphasis placed on physico and electro chemical and clinical methods, collection and analysis of data, extrapolations and conclusions. Working models, including human responses, computer simulations are studied. Prerequisite: Chemistry 30A and Anatomy 1 (both completed with a grade of "C" or higher). Strongly recommended: Chemistry 30B and Eligibility for English 1A or 52A. 3 hours lecture, 6 hours laboratory. AA/AS GE. Transfer: CSU, UC*; CSU GE: B2 \& B3; IGETC: 5B (with lab). *PHSI \& ANAT 1 combined with BIOL 50, max UC credit, 2 courses.
Degree Applicable, Credit
Grading Option: GR

## POLITICAL SCIENCE

## About the Program

Political Science students study public issues of the day, as well as the timeless issues of government, public policy, and the political process as preparation for a wide variety of careers. At Las Positas College, courses cover the full spectrum of the political science discipline, from American Government, California State and Local Government, Comparative Government, Political Theory, and International Relations. The academically rigorous program provides opportunities for learning about the political process, fulfilling general education requirements, as well as preparation for transfer, fulfilling the typical lower-division requirements at a four-year institution. The course curriculum is designed for building critical thinking and analytical skills necessary for a variety of careers but also offers avenues for students to actively participate in the political process.

## POLITICAL SCIENCE (POLI)

POLI 7 INTRODUCTION TO AMERICAN GOVERNMENT 4 UNITS
Introduction to the principles, problems and basic issues of government with particular emphasis on the national government in the United States, including discussion of the American Constitution, and California state and local government. AA/AS GE. Transfer: CSU, UC; CSU GE: D8, AI; IGETC: 4H, Al. Strongly recommended: Eligibility for English 1A. 4 hours.
Degree Applicable, Credit
Grading Option: OP

## POLI 12 INTRODUCTION TO CALIFORNIA

STATE AND LOCAL GOVERNMENT
3 UNITS
Organization and operation of government and politics at the state, county and municipal level; emphasis on current issues and the influences of historical, geographical, political, economic and social factors on public policy. Strongly recommended: Eligibility for English 1A. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: D8 Degree Applicable, Credit

Grading Option: OP

## POLI 20 COMPARATIVE GOVERNMENT

3 UNITS
Contemporary forms of government, institutions and political problems of selected national governments. Strongly recommended: Political Science 1 or Political Science 7 and English 1A. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: D8; IGETC: 4H
Degree Applicable, Credit
Grading Option: OP

POLI 25 INTRODUCTION TO POLITICAL THEORY 3 UNITS
Various theoretical approaches to politics including selected aspects of political thought from ancient times to the present with application to current political thought. Strongly Recommended: Political Science 7 and Eligibility for English 1A. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: D8; IGETC: 4H
Degree Applicable, Credit
Grading Option: OP
POLI 30 INTERNATIONAL RELATIONS
3 UNITS
Introduction to international relations, politics, theories and institutions with an emphasis on contemporary practices. Strongly recommended: Political Science 7 and Eligibility for English 1A. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: D8; IGETC: 4H Degree Applicable, Credit

Grading Option: OP

POLI 45 SELECTED TOPICS IN POLITICAL SCIENCE 2-3 UNITS An examination of a current topic/issue in Political Science, including such areas as international relations, economic/social policy issues, comparative government, elections and political parties, political theory and American foreign affairs, with emphasis on an examination of public policy alternatives. Topics/areas of study will vary with class offering, designed to meet the interests of students. Strongly Recommended: A college course in political science and/or American History. 2-3 hours. Transfer: CSU, UC* *Transfer credit for this course may be granted after a review of the course outline by a UC campus after transfer.
Degree Applicable, Credit
Grading Option: OP

## PSYCHOLOGY

DEGREE

## About the Program

Psychology is the science of behavior and mental experiences. Psychology includes a variety of subfields including biological, developmental, clinical, counseling, school, and experimental psychology.

## Degrees/Certificates

- Degree:
- AA - Psychology


## Career Opportunities

The Las Positas Psychology program offers an AA degree that provides students with a basic understanding of behavior and motivation that is valuable in many careers in business, government, and education. To become a "psychologist," however, requires graduate level training.

## Transferability

The program provides preparation for transfer, fulfilling typical lower-division requirements for most four-year institutions. Some variation in requirements may exist at a particular four-year institution; therefore, it is essential that the student also refer to the catalog of the prospective transfer institution and consult a counselor.
AA - Psychology (transfer preparation)
Psychology 1 (General Psychology). .....  3
Psychology 4 (Brain, Mind, and Behavior). .....  3
Psychology Electives*. ..... 0-6General Education Courses**
Sophomore Year
Mathematics 42A (Introduction to Probability and Statistics) orMathematics 44 (Statistics and Probability).3-5
Psychology 2 (Introduction to Psychological Methodology) .....  3
Psychology 12 (Lifespan Psychology). .....  3
Psychology Electives* ..... 0-6
General Education Courses**Total Units Required 60
*Psychology Electives
Select from the following for a minimum of 6 units:Psychology 3 (Social Psychology) 3
Psychology 6 (Abnormal Psychology).. .....  3
Psychology 10 (Psychology of Human Sexuality). .....  3
Psychology 15 (Problems of Childhood).. .....  3
Psychology 16 (Selected Topics in Psychology) .....  3
Psychology 20 (Drugs and the Brain). .....  3
Psychology 24 (Sport Psychology). .....  3

## **Recommended Courses

Anthropology 1 (Physical Anthropology)
Anthropology 3 (Social and Cultural Anthropology)
Anthropology 5 (Cultures of the U.S. in Global Perspective)
Biology 10 (Introduction to the Science of Biology
Biology 31 (Introduction to College Biology)
Early Childhood Development 50 (Prenatal to Early Childhood)
Early Childhood Development 51 (Childhood to Adolescence)
Early Childhood Development 62 (Child, Family, and Community)

Philosophy 4 (Introduction to Philosophy: Theory of Knowledge)
Psychology/Counseling 11 (Interpersonal Relationships)
Psychology-Counseling 13 (Multicultural Issues in Contemporary America)
Sociology 3 (American Culture and Racial Minorities)
Sociology 4 (Marriage and Family Relations)

## PSYCHOLOGY (PSYC)

## PSYC 1 GENERAL PSYCHOLOGY

Basic psychological concepts underlying human and animal behavior in such areas as learning, motivation, perception, personality and social behavior. Strongly Recommended: Eligibility for English 1A. 3 hours. AA/ AS GE. Transfer: CSU, UC; CSU GE: D9; IGETC: 4I.
Degree Applicable, Credit
Grading Option: OP

## PSYC 2 INTRODUCTION TO PSYCHOLOGICAL METHODOLOGY

3 UNITS
Introduction to scientific method in the study of human and animal behavior. Experience in designing, performing, and reporting behavioral science experiments and surveys. Includes fundamentals of research design, hypothesis testing, and reasoning in inferential statistics. Strongly recommended: Psychology 1.3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: D9; IGETC: 4I.
Degree Applicable, Credit
Grading Option: OP

## PSYC 3 PROBLEMS AND METHODS IN INDIVIDUAL AND SOCIAL PSYCHOLOGY

Research and theory regarding psychological processes within individuals such as attitudes, perception, cognition that influence or are influenced by the physical setting in which they occur and the social groups to which individuals belong. Strongly recommended: Psychology 1 or Sociology 1 or Anthropology 3.3 hours. AA/AS GE. Transfer: CSU,
UC; CSU GE: D9; IGETC: 41
Degree Applicable, Credit
Grading Option: OP

## PSYC $4 \quad$ BRAIN, MIND, AND BEHAVIOR <br> 3 UNITS

Introduction to the field of biopsychology. The biopsychology of cognitive, perceptual, emotional, developmental, and social processes. Includes the biopsychology of personality, gender, emotions, learning, learning disabilities, drugs, neurological and developmental disorders, and mental health. Examination of information and theory for practical application. 3 hours.AA/AS GE. Transfer: CSU, UC; CSU GE: B2 or D9; IGETC: 4 or 5B
Degree Applicable, Credit Grading Option: OP
PSYC 6 ABNORMAL PSYCHOLOGY
Introduction to abnormal psychology. Mental health and mental health disorders in adults and children. Includes disorders of anxiety, mood, personality, sexuality, substance abuse, psychosis and other disorders. Major psychological, biological, and sociocultural models of mental health disorders and their treatment. 3 hours. Transfer: CSU, UC; CSU GE: D9; IGETC: 41
Degree Applicable, Credit
Grading Option: OP
PSYC 10 PSYCHOLOGY OF HUMAN SEXUALITY 3 UNITS
Physiological and psychosocial aspects of sexual health in our contemporary society. Understanding the interrelationship of attitude and behavior as it relates to sexual well-being and sexual integrity. 3 hours lecture. AA/AS GE. Transfer: CSU, UC.
Degree Applicable, Credit
Grading Option: OP

## PSYC 12 LIFESPAN PSYCHOLOGY <br> 3 UNITS

Introduction to the psychological, physiological, and socio-cultural factors influencing development from conception through death. Emphasis on the process of normal development and its variations. Examination of theoretical models and research for practical application. 3 hours. AA/AS GE; Transfer: CSU, UC; CSU GE: Area D or E; IGETC: 4I Degree Applicable, Credit

Grading Option: OP

## PSYC 13 PSYCHOLOGY OF WOMEN

3 UNITS
This course examines the diverse experiences of women from a psychological perspective. Students will explore psychological theory and research on gender and issues that affect women, and will gain insight into how psychologists investigate gender-related issues. Strongly recommended: Psychology 1. 3 hour lecture.AA/AS GE Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
PSYC 15 PROBLEMS OF CHILDHOOD
3 UNITS
An exploration of the emotional, cognitive, developmental, and behavioral problems of childhood and adolescence. Topics include: common stresses and problems of adjustment; the effects of stress, abuse, and traumas on development; mental retardation, autism and other developmental disabilities; normal and abnormal problems of attention, conduct, mood anxiety, sleep, eating, sex, learning and speech. Examination of theories of cause of mental health problems in children and adolescents and approaches to treatment. Examination of information and theory for practical application. Students who have completed or are enrolled in Early Childhood Development 15 may not receive credit. 3 hours. AA/AS GE. Transfer: CSU; CSU GE: D9. Degree Applicable, Credit

Grading Option: OP

## PSYC 16 SELECTED TOPICS IN PSYCHOLOGY 3 UNITS

Selected topics, issues and controversies in contemporary psychology Study of behavior as a personal, social, and biological phenomenon. Examination of information and theory for practical application. (May be taken 4 times). 3 hours. Transfer: CSU
Degree Applicable, Credit Grading Option: OP

## PSYC 20 DRUGS AND THE BRAIN

3 UNITS
Overview of the physiological and psychological effects of recreational and medicinal psychoactive substances, including opiates, sedative-hypnotics, anxiolytics, antidepressants, antipsychotics, stimulants, marijuana, hallucinogens, and dissociative anesthetics. The course will examine the theories and evidence concerning dependence, substance abuse, tolerance, and withdrawal for the major drug classes. Prerequisite: Psychology 1.3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: D9; IGETC: 4I
Degree Applicable, Credit
Grading Option: GR

PSYC 24 SPORT PSYCHOLOGY 3 UNITS
A formal introduction to the study of sport psychology focusing upon both the psychological factors that influence participation in sport and exercise and the psychological effects derived from that participation. Emphasis on understanding the psychological processes involved in human performance, models of intervention that can enhance and improve learning and performance conditions, and the strategies which can elicit and influence favorable psychological perceptions and outcomes. Students who have completed or are enrolled in Physical Education 24 may not receive credit. 3 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

# PSYCHOLOGY COUNSELING 

About the Program<br>Psychology-Counseling courses were developed to help educate students about the programs and resources of Las Positas College. These courses enable students to explore and develop a personal career plan, and improve and enhance study skills for success in college. These courses are also offered to increase students' knowledge in multiculturalism. Additionally, they provide students with a means to learn theoretical knowledge, gain hands-on experience, and explore career opportunities in the field of Health and Human Services.

## Certificate of Achievement <br> Health and Human Services

Psychology-Counseling 5 (Introduction to Human Services).................... 3
Psychology-Counseling 3 (Introduction to Counseling Theory)............... 3 Psychology-Counseling 6
(Human Services Case Management Theory) .......................................... 3
Psychology-Counseling 8
(Theories and Concepts of Group Theories) .......................................... 3
Psychology-Counseling 13 (Multicultural Issues in Human Services or
Sociology 3 (American Cultural and Racial Minorities) ......................... 3
Internship 1 (Internship Seminar)...................................................................... 1
Internship 2 (Internship Field Placement)..................................................... 1

Total units required..................................................................................................
*Electives
Select from the following for a minimum of 2 units:
Anthropology 3 (Social and Cultural Anthropology)
Early Childhood Development 62 (Child, Family and Community)
Health Science 55 (Orientation to Health Care)
Internship 2 (Internship Field Placement)
Psychology 1 (General Psychology)
Psychology 6 (Abnormal Psychology)
Psychology 12 (Lifespan Psychology)
Psychology-Counseling 7 (Contemporary Issues)
Psychology-Counseling 10 (Career and Educational Planning) Psychology-Counseling 11 (Interpersonal Relationships)
Psychology-Counseling 19 (A Case Management Approach to Addiction, Recovery and Prevention)
Sociology 4 (Marriage and Family Problems)
Sociology 6 (Social Problems)

## PSYCHOLOGY COUNSELING (PSCN)

## PSCN 3 THEORIES AND CONCEPTS OF COUNSELING: AN INTRODUCTION

This is an introductory course to the theories and concepts, as well as the historical foundations of counseling with an emphasis on fundamental principles of the therapeutic process. There will be a major focus on multicultural principles and major diagnostic categories, problems, and solutions relating to recovery in counseling. Ethics in counseling, as well as legal implications will also be introduced and examined. 3 hours lecture. AA/AS GE. Transfer: CSU; CSU GE: D7 or D9
Degree Applicable, Credit
Grading Option: OP

## PSCN 5 INTRODUCTION TO HUMAN SERVICES 3 UNITS

Course examines the history, theory, ethics, values and principles at work in the Human Services field. Emphasis is placed on modern theory, methods, and critical skills that lead to effective human service work. Students will examine theoretical systems, agency and community resources, a multicultural approach to diverse populations, personal motivation and professional characteristics needed to succeed in Human Services. 3 hours. Transfer: CSU
Degree Applicable, Credit Grading Option: OP
PSCN 6 INTRODUCTION TO COUNSELING CASE MANAGEMENT FOR HUMAN SERVICES

3 UNITS
Introduction to case management theory, models and techniques, multicultural issues affecting case management theory. Emphasis placed on case management philosophy, ethical issues, concepts and practices. Analysis of needs, documentation and confidentiality, and individualized consumer plan development. Strongly recommended: PsychologyCounseling 5.3 hours. Transfer: CSU
Degree Applicable, Credit Grading Option: OP
PSCN 7 CONTEMPORARY ISSUES
1-3 UNITS
Contemporary life issues related to social effectiveness, and educational and career development. Explores issues through an examination of current counseling related research findings and resource materials. Limit of 6 units. 1-3 hours. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP
PSCN 8 THEORIES AND CONCEPTS OF GROUP PROCESS 3 UNITS
Concepts and theories of group process for effective functioning in interpersonal and group settings, including mindful listening, interviewing, group interaction and facilitation, decision-making, and conflict resolution. Comparative and integrative approaches to five ethnic groups will be emphasized: African-Americans, Asian-Americans, EuropeanAmericans, Latino-Americans, and American Indians. Focus on improving the individual's understanding of group dynamics in human services settings, relating across differences of race, gender, ethnicity, sexual orientation, and social class. 3 hours lecture. AA/AS GE. Transfer: CSU Degree Applicable, Credit

Grading Option: OP
PSCN 10 CAREER AND EDUCATIONAL PLANNING 2 UNITS
Exploration of the concept of educational/career planning focusing on personal career development through self-assessment, psychological testing, and individual counseling. Emphasis on clarification of individual interests, values, needs, and abilities and investigation of occupational opportunities in the world of work. Designed for those undecided or uncertain about their career and educational plans. May not receive credit if Psychology-Counseling 10A or 10B have been completed. 2 hours. Transfer: CSU; CSU GE: E.
Degree Applicable, Credit
Grading Option: OP

PSCN 11 INTERPERSONAL RELATIONSHIPS
2 UNITS
Exploration of behavior in interactions with others. Designed to improve interpersonal relationships for the benefit of academic, career, and personal development. 2 hours. Transfer: CSU (May be taken 2 times) Degree Applicable, Credit

Grading Option: C/N

## PSCN 13 MULTICULTURAL ISSUES IN

CONTEMPORARY AMERICA
3 UNITS
Exploration of issues relating to the multicultural community in which we live today. Interpersonal relations and communication. Focus on improving the individual's understanding of other cultures and how those cultures impact the American lifestyle. Includes exploration of myths and misunderstandings. Discussion of four specific cultures or sub-cultures from the following groups: (1) African-American, (2) Asian-American, (3) Hispanic American, (4) Native-American, (5) Middle Eastern-American, (6) European-American, (7) Gay/Lesbian American and (8) Disabled American. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: D3 or D7; IGETC: 4G
Degree Applicable, Credit
Grading Option: OP

## PSCN 15 COLLEGE STUDY SKILLS

2 UNITS
Review of study skill techniques for success in college. Emphasis on time management, personal learning style, active listening, note-taking and test-taking strategies. Includes modeling, practice, and evaluation of study skill techniques. 2 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

PSCN 18 UNIVERSITY TRANSFER PLANNING
.5-1 UNIT
Introduction to the resources and planning process needed to ease transition from community college to a four-year college or university. Development of a transfer action plan. Preparation for major and general education requirements. Application cycles and important deadlines. Recommended for those transferring to four-year colleges or universities. 0.5-1 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## PSCN 19 A CASE MANAGEMENT APPROACH TO

 ADDICTION, RECOVERY AND PREVENTION 3 UNITS Introductory course in case management specific to addiction, recovery and prevention processes used in various occupational field placements, e.g., county mental health clinics, hospitals, drug and alcohol treatment facilities, nonprofit health and human services agencies. Basic terminology used in alcohol, psychoactive drugs and other related addiction terms will be covered. Self-help groups such as Alcoholics Anonymous (AA), Overeaters Anonymous (OA), Adult Children of Alcoholics (ACA), Co-dependents Anonymous (CoDA), Gamblers Anonymous (GA), and Narcotics Anonymous (NA) will be discussed. Current models of prevention, treatment planning, client monitoring and documentation in collaboration with other staff, e.g., physicians, social workers, counselors, will be emphasized. Hands-on approach in learning how to formulate measurable goals and objectives to client recovery. 3 hours lecture. Transfer: CSUDegree Applicable, Credit Grading Option: OP

## PSCN 25 TRANSITION TO COLLEGE <br> . 5 UNIT

A survey of practical strategies for academic success focusing on the new student. Examines goal setting, college policies, graduation requirements, campus resources, student rights and responsibilities, and student educational planning. Designed for first time college students in order to enhance their transition into college and maximize their academic/vocational potential. 0.5 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: P/N
PSCN 28 ORIENTATION FOR INTERNATIONAL STUDENTS 1 UNIT
Exploration of practical strategies for academic success and to experience a positive transition into the American educational system and culture focusing on the new international student. Examines goal setting, cultural adjustment, college policies, graduation requirements, campus resources, programs and services, student rights and responsibilities, introduction to the California systems of higher education, student educational planning and other topics as needs are identified. Designed for first-time international college students in order to enhance their transition into American society and maximize successful matriculation through college toward their academic goals. Required for all foreign-visa students. 1 hour lecture.
Degree Applicable, Credit
Grading Option: OP

PSCN 40 LIFE SKILLS: PERSONAL FINANCE
1 UNIT
Promoting financial responsibility and the application of math skills to everyday money matters. Emphasis on learning and understanding basic banking skills, including balancing a checkbook, credit card use, and the difference between needs versus wants, which will contribute to financial stability for individuals and the communities they live in. 1 hour lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

PSCN 100 BRIDGE TO COLLEGE AND CAREERS
1 UNIT
Examine self-efficacy issues and begin to develop strong self-efficacy behaviors. Develop behaviors that lead to academic and career success, such as understanding individual learning styles, building and working in diverse learning style teams, effective and appropriate methods of communication, effective and appropriate behaviors in the classroom and the workplace. Course is based on curriculum used to train executives in large companies to develop professional behaviors. 3 hours laboratory. (May be taken 2 times)
Nondegree Applicable, Credit Grading Option: OP

## RADIATION SAFETY

## About the Program

The Radiation Safety sequence is a modularized series of courses designed to provide basic radiation safety instruction. Knowledge gained from taking the sequence of classes includes identification of the sources of radiation and radioactive materials, the nature of ionization radiation, biological effects, risk assessment, protection strategies, environmental impacts, and waste handling.

## Career Opportunities

The Radiation Safety sequence of classes could be taken by students seeking careers in radiology, radiation safety, occupational safety and health, industrial hygiene, certified safety professional, emergency response, and hazardous materials control.

## Transferability

Course credits are transferable to the California State University System.

## Radiation Safety (RADS)

RADS 40ABC RADIATION SAFETY
2-4 UNITS
A modularized course designed to provide basic radiation safety instruction. Includes identification of the sources of radiation and radioactive materials, the nature of ionization radiation, biological effects, risk assessment, protection stratigies, environmental impacts, and waste handling. RADS 40A, Radiation Safety Basics, 2 units. Strongly Recommended: Mathematics 65, 71, or appropriate skill level demonstrated through the Mathematics assessment process. RADS 40B, Emergency Response and Monitoring. 1 unit. Prerequisite: Radiation Safety 40A (completed with a grade of " $C$ " or higher). RADS 40C, Safety Controls and Regulation, 1 unit. Prerequisite: Radiation Safety 40B (completed with a grade of "C" or higher). 18 total hours per unit. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

# RECREATION AND LEISURE SERVICES (RELL) 

## RECL 7IL FUNDAMENTALS OF BACKPACKING 2 UNITS

Introduction to concepts and techniques associated with backpacking. Skills emphasized in this course are designed to increase recreation leadership potential in outdoor recreation and education careers. 1.5 hours lecture, 2 hours laboratory. Transfer: CSU

Degree Applicable, Credit
Grading Option: OP

RELS 1 RELIGIONS OF THE WORLD 3 UNITS
Introduction to religion by examining several religions; basic principles of each shown by fundamental scriptures and works in the visual and musical arts. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: C2; IGETC: Area 3B
Degree Applicable, Credit
Grading Option: GR
RELS 2 THE BIBLE: HISTORY AND LITERATURE 3 UNITS
Study of the historical context and literary forms of the Hebrew Bible and New Testament. Emphasis on social, political and economic origins of the works, their literary motifs, and how their creation reflected ongoing cultural values. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: C2; IGETC: Area 3B
Degree Applicable, Credit Grading Option: GR

## RELS 3 AN INTRODUCTION TO

 WOMEN'S SPIRITUALITY3 UNITS
An interdisciplinary and cross-cultural examination of women's spirituality with particular reference to women's contributions and influence in redefining feminine aspects of the divine. Examines the use of feminine experience as a primary construct for understanding the connection between women's spirituality and the sacred. This course will also explore how issues of gender, culture, and identity influence women's religious experiences. Explores religious texts, rituals, music, poetry and film. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; IGETC: Area 3B Degree Applicable, Credit

Grading Option: GR

RELS 11 THE NATURE OF ISLAM
3 UNITS
Introduction to the nature of Islam as a religion or system for life, its culture and its impact on Muslim individuals and groups. Includes a brief history of Islam and Muslims in relation to the basic sources of Islam.
3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: C2; IGETC: Area 3B
Degree Applicable, Credit
Grading Option: OP

## SOCIAL SCIENCE

DEGREE

## About the Program

Social Science is designed to provide a broad interdisciplinary foundation for further study. This is a general field that includes courses in Anthropology, Economics, Cultural Geography, History, Political Science, Psychology and Sociology.

It can also serve as a foundation from which students continue study in specialized fields.

## Degrees/Certificates

- AA - Social Science


## Transferability

Students may complete lower-division requirements for transfer in general in individual social science disciplines. Some variation in requirements may exist at a particular four-year college or university; therefore, it is essential that students refer to the catalog of the prospective transfer institution and consult a counselor. General Education courses should be carefully selected to meet the requirements of the intended transfer institution; some transfer institutions require more General Education units than required by this AA degree.

## AA - Social Science (General)

## Freshman Year

Anthropology 1 (Physical Anthropology)........................................................... 3
Geography 2 (Cultural Geography)................................................................ 3
Complete 1 of the following combinations for a total of 6 units:
History 1 (History of Western Civilization to 1600) and History 2
(History of Western Civilization since 1600) or
History 7 (U.S. History through Reconstruction) and History 8


Electives*..................................................................................................................-9
General Education Courses

## Sophomore Year

Economics 1 (Principles of Microeconomics) or
Economics 2 (Principles of Macroeconomics). 3
Political Science 7 (Introduction to American Government). .....  4
Psychology 1 (General Psychology). .....  3
Sociology 1 (Principles of Sociology) .....  3
Electives* ..... 0-9

General Education Courses
Total units required60

## *Electives

Select 3 courses from the following for a minimum of 9 units.
Anthropology 2 (Introduction to Archaeology:
Prehistory and Culture Growth)
Anthropology 3 (Social and Cultural Anthropology)
Anthropology 5 (Cultures of the U.S. in Global Perspective)
Geography 5 (World Regional Geography)
History 14 (History and American Cultures of California)
History 25 (American Indian History and Culture)
History 28 (History of American West)
Political Science 20 (Comparative Government)
Political Science 30 (International Relations)

Psychology 3 (Problems and Methods in Individual and Social Psychology)
Psychology 4 (Brain, Mind, and Behavior)
Psychology 6 (Abnormal Psychology)
Psychology 10 (Human Sexuality)
Psychology 24 (Sport Psychology)
Sociology 3 (American Cultural and Racial Minorities)
Sociology 4 (Marriage and Family Relations)
Sociology 6 (Social Problems)
Sociology 7 (Human Sexuality)
Sociology 11 (Sociology of Gender)

## SOCIOLOGY

## About the Program

Courses in Sociology are designed to prepare students for further study in Sociology leading to the BA, MA, MSW, and/or PhD degrees.

## Degrees/Certificates

- AA-T - Associate in Arts in Sociology for Transfer

In addition to core degree requirements in Sociology, students are required complete either CSU GE or IGETC patterns under the Student Transfer Achievement Reform Act (Senate Bill 1440, now codified in California Education Code sections 66746-66749), which 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.

## Career Opportunities

Sociologists with graduate degrees may teach at the high school, college, or graduate levels. They may also become Research Sociologists in both the public and private sectors and work in areas of public policy, the law, and international studies. Applied Sociologists may work with social service agencies and community programs on behalf of others-often underrepresented or neglected groups.

## Transferability

This program fulfills typical lower-division requirements at four-year transfer institutions. Some variation in requirements may exist at a particular four-year college or university; therefore, it is essential that the student also refer to the catalog of the prospective transfer institution and consult a counselor.

## AA - Sociology for Transfer

## Freshman Year

Sociology 1 (Principles of Sociology)................................................................. 3
List B Options (see list below). 6

General Education

## Sophomore Year

List A Options (see list below) ....................................................................7-9
List C Options (see list below) .... 3

General Education

Total Units for Major

Total Units for CSU GE or IGETC
.37-39 units

Total Units for Degree
.60 units

## List A Options

Select two from the following for a minimum of 7 units:
Sociology 6 (Social Problems) ........................................................................ 3
Math 44 (Statistics and Probability) ......................................................................... 5
Sociology 13 (Introduction to Research Methods)...................................... 4

## List B Options

Select two from the following for a minimum of 6 units:
Sociology 6 (Social Problems - if not selected for List A Options)....... 3
Math 44 (Statistics and Probability -
if not selected for List A Options)............................................................. 5
Sociology 13 (Introduction to Research Methods -
if not selected for List A Options)..

Sociology 3 (Cultural and Racial Minorities).. .....  3

Sociology 4 (Marriage and Family Relations). .....  3
Sociology 7 (Sociology of Sexuality). .....  3
Sociology 11 (Sociology of Gender) .....  .3
List C OptionsSociology 6 (Social Problems -
if not selected for List A or B Options). .....  3
Math 44 (Statistics and Probability -if not selected for List A or B Options) 5
Sociology 13 (Introduction to Research Methods - if not selected for List A or B Options). .....  4
Sociology 3 (Cultural and Racial Minorities - if not selected for List B Options) .....  .3
Sociology 4 (Marriage and Family Relations - if not selected for List B Options) .....  3
Sociology 7 (Sociology of Sexuality - if not selected for List B Options).. .....  .3
Sociology 11 (Sociology of Gender -if not selected for List B options). 3
Sociology 5 (Global Change - recommended for UC transfer) .....  3
Sociology 12 (Popular Culture - recommended for UC transfer) .....  3
Anthropology 3 (Social and Cultural Anthropology) .....  3
Psychology 1 (General Psychology). .....  3

## SOCIOLOGY (SOC)

## SOC 1 PRINCIPLES OF SOCIOLOGY 3 UNITS

The sociological perspective: scientific study of human interaction and society as a whole with emphasis on impact of groups on social behavior; systematic examination of culture and social organization, and methodology. 3 hours. AA/AS GE. Transfer: CSU; UC; CSU GE: DO; IGETC: 4J
Degree Applicable, Credit
Grading Option: OP

## SOC 3 AMERICAN CULTURAL AND

 RACIAL MINORITIES3 UNITS
Analysis of racial and ethnic relations in the United States. Includes race, ethnicity, prejudice, discrimination and stereotyping, as well as theories and patterns of intergroup relations. Focus on contemporary minorities; African Americans, Chicano/Latinos, Asian Americans, and Native Americans. Strongly recommended: Sociology 1 or Anthropology 3 or Psychology 1.3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: DO; IGETC: 4J
Degree Applicable, Credit
Grading Option: OP

## SOC 4 MARRIAGE AND FAMILY RELATIONS 1 UNIT

Sociological perspective of the family, including mate selection, marital roles, marital adjustment, sexual adjustment, reproduction, child rearing, marital dissolution, and problems associated with the family in modern
industrial society. Emphasis on methodology of family investigation. 3
hours. AA/AS GE. Transfer: CSU, UC; CSU GE: DO; IGETC: 4J
Degree Applicable, Credit
Grading Option: OP
SOC 5 GLOBAL CHANGE
3 UNITS
This course looks at the economic and political forces that have led to rapid changes in global interaction and culture over the past century, with special emphasis on the last twenty years. It explores the issues of nationalism, global citizenry, state violence, terrorism, the global economy, migration, the threatened environment, technology, and the role of multinational media industries on culture. 3 hours lecture.AA/ AS GE. Transfer: CSU, UC; CSU GE: D7; IGETC: 4G

## SOC 6 SOCIAL PROBLEMS

3 UNITS
This course takes an in-depth look at selected social problems from a sociological perspective. Topics will vary from semester to semester. Each class will cover at least one of each of the following: a social problem dealing with social inequality, a social problem of national concern, and a social problem of global concern. Current topics include: the current trend of "wilding" behavior by individuals and institutions, the growth of inner cities, the social consequences of the globalization of labor, and terrorism. 3 hours. Transfer: CSU, UC; CSU
GE: DO; IGETC: 4J
Degree Applicable, Credit Grading Option: OP
SOC 7 SOCIOLOGY OF SEXUALITY
3 UNITS
This course looks at the social forces that influence, and are influenced by, our construction of sexuality. Topics covered include: the social construction of the erotic, the creation of sexual identities, gender and sexuality, religion and sexuality, sexual commerce, and global issues such as birth control and STDs. 3 hours. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

## SOC 11 SOCIOLOGY OF GENDER <br> 3 UNITS

This course examines the social construction of masculinity and femininity historically and cross-culturally. It analyzes the impact of economic and political change on gender expectations and performance. This class focus includes both macro-analyses of how institutions shape gender and micro-analyses of how individuals "do" or practice gender. Topics include: work, violence, sexual roles, early childhood socialization, and the impact of media images. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: DO; IGETC: 4J Degree Applicable,Credit

Grading Option: OP

## SOC 12 POPULAR CULTURE

3 UNITS
The course explores the historical, theoretical, political, and economic factors that influence the creation and diffusion of popular culture. It examines the impact of technological innovation and globalization on how popular culture is consumed and how this affects society. 3 hours lecture. Degree Applicable, Credit

Grading Option: OP
SOC 13 INTRODUCTION TO RESEARCH METHODS 4 UNITS This course orients students to the methods of data collection and analysis used by sociologists. Instruction includes an overview of sociological theory, instruction on experimental methods, surveys, interviews, field research, participant observation, demographic methods, and comparative historical approaches. 3 hours lecture, 3 hours laboratory.
Degree Applicable, Credit Grading Option: OP

## SPANISH


#### Abstract

About the Program The Foreign Language program provides a rigorous and intensive study and practice in French, Italian and Spanish. Basic foreign language learning skills such as listening, speaking, reading, and composition are combined with emphasis on learning about the culture of the people who speak the individual languages


## SPANISH (SPAN)

## SPAN 1A BEGINNING SPANISH

5 UNITS
The introductory level course will enable students to begin speaking, reading and writing elementary level Spanish as well as understanding the spoken language. Students are introduced to concepts of grammar, vocabulary and verb tenses in a variety of auditory, visual and written contexts. Strongly Recommended: Eligibility for English 1A.
5 hours. AA/AS GE. Transfer: CSU, UC; IGETC: Area 6
Degree Applicable, Credit Grading Option: OP

## SPAN 1B ELEMENTARY SPANISH

## 5 UNITS

This is the second semester of the introductory level course and will enable students to continue to learn to speak, read and write elementary level Spanish as well as to understand the spoken language. Students are introduced to concepts of grammar, vocabulary and verb tenses in a variety of auditory, visual and written contexts. Prerequisite: Spanish 1A (completed with a grade of " C " or higher). 5 hours. AA/AS GE. Transfer: CSU, UC; IGETC: Area 6 Degree Applicable, Credit

Grading Option: OP

## SPAN 2A INTERMEDIATE SPANISH

4 UNITS
Review of grammar; reading of works of modern authors; practice in conversation and composition. Prerequisite: Spanish 1B (completed with grade of "C" or higher). 4 hours. AA/AS GE. Transfer: CSU, UC. CSU GE:C2; IGETC: 3B
Degree Applicable, Credit Grading Option: OP

## SPAN 2B ADVANCED SPANISH 4 UNITS

Reading of works of modern authors; advanced review of grammar emphasis on speaking and composition. Prerequisite: Spanish 2A (completed with a grade of "C" or higher). 4 hours lecture. Transfer: CSU, UC; CSU GE: C2; IGETC: 3B
Degree Applicable, Credit Grading Option: GR

## SPECIAL STUDIES

## 99 SPECIAL STUDIES 0.3-19.25 UNITS

Special studies in a specialized technical-vocational major. Typically offered for a particular occupation or skill. Course may be offered under any course title contained in the Catalog, using the number 99. 0.3-1056 hours. Transfer: CSU

Degree Applicable, Credit Grading Option: varies by course

## SPEECH

## DEGREE

## About the Program

The Speech program is designed to provide students with fundamental understanding of the principles of speech communication as well as experience in the application of these principles. Participation in these classes develops critical thinking, personal growth, research, presentation skills, and an understanding of diversity. Classes prepare students for transfer to four-year institutions and entry into careers in which effective communication skills are important, such as teaching, public relations, and law. This program fulfills typical lower-division requirements at four-year transfer institutions and offers opportunities to participate in intercollegiate competition in the areas of public speaking and oral interpretation. Some variation in requirements may exist at a particular four-year college or university; therefore, it is essential that the student also refer to the catalog of the prospective transfer institution and consult a counselor.

## Degrees/Certificates

- Degree:
- AA - Speech


## Transferability

This program fulfills typical lower-division requirements at four-year transfer institutions. Some variation in requirements may exist at a particular four-year college or university; therefore, it is essential that the student also refer to the catalog of the prospective transfer institution and consult a counselor.

## AA - Speech

## Freshman Year

Speech 1 (Fundamentals of Speech Communication) ............................... 3
Speech 48** (Activities in Forensics)........................................................ 2-8
Speech 2A (Oral Interpretation of Literature)............................................ 3
Speech 10 (Interpersonal Communication)................................................. 3
Electives
General Education Courses

Sophomore Year
Speech 46 (Argumentation and Debate)....................................................... 3
Speech 48** (Activities in Forensics).............................................................. 2-8
Option (Speech/Related Discipline)*......................................................... 3
Electives
General Education Courses
Total units required .. 60

## *Option

Select from the following for a minimum of 3 units:
Speech 2B (Interpretation of Literature II)
Speech 3 (Group Communication)
Speech 5 (Readers Theater)
Theater Arts 25 (Fundamentals of Stage Speech)
**Speech 48 should be taken for a minimum of 4 units and a maximum of 16 units

## SPEECH (SPCH)

SPCH 1 FUNDAMENTALS OF SPEECH COMMUNICATION 3 UNITS
Fundamentals of speech communication; emphasis on developing, stating, organizing, and researching ideas, and presenting to an audience; includes developing the faculties of critical listening and problem-solving. Strongly Recommended: Eligibility for English 1A. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: AT; IGETC: $1 C$ Degree Applicable, Credit

Grading Option: OP
SPCH 2A ORAL INTERPRETATION OF LITERATURE I 3 UNITS
Development of skill in reading quality literature aloud; practice in writing scholarly criticism of the literature presented orally. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: C2
Degree Applicable, Credit
Grading Option: OP
SPCH 2B ORAL INTERPRETATION OF LITERATURE II 3 UNITS
Further development of skills and knowledge of individual oral interpretation from more difficult and specialized literary sources. Explores other forms of performance such as duet reading and chamber theater. Development of dialect and further vocal characterization. Prerequisite: Speech 2A (completed with a grade of "C" or higher). 3 hours. AA/AS GE. Transfer: CSU, UC.
Degree Applicable, Credit
Grading Option: OP

## SPCH 3 GROUP COMMUNICATION

3 UNITS
Communication in small group situations. Role of communication in various group processes, including norms, roles, leadership and decision-making, with application to modern concepts of organizational communication. Includes participation in simulation exercises and group activities. 3 hours. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP
SPCH 5 READERS THEATER
3 UNITS
Introduction to various media and techniques used in readers theater and the arrangement and programming of literature. Performance and/ or arrangement of programs for specific audiences; children, young adults, and adults by using live theater presentation, television, and/or radio. 3 hours. AA/AS GE. Transfer: CSU, UC.
Degree Applicable, Credit
Grading Option: OP
SPCH 10 INTERPERSONAL COMMUNICATION 3 UNITS
Exploration, discussion, and evaluation of the components of the verbal and non-verbal communication process. Strongly recommended: eligibility for English 1A. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: E
Degree Applicable, Credit
Grading Option: OP

## SPCH 11 INTERCULTURAL COMMUNICATION <br> 3 UNITS

Intercultural communication with a focus on the analysis and comparisons of message perception and transmission in interactions between people from different cultures. Emphasis on practical application of skills for effective communication between people of different domestic and international cultures. 3 hours. AA/AS GE. Transfer: CSU, UC.
Degree Applicable, Credit
Grading Option: GR

## SPCH 43 PROFESSIONAL COMMUNICATIONS 4 UNITS

This course is designed to help students develop and refine the written and oral communication skills necessary to communicate effectively in a business environment. This will be accomplished through the planning, composing, and evaluating of written communication; report writing; and oral presentations. Additional focus will be placed on developing interpersonal skills, team participation skills, and professionalism. Students who have completed or are enrolled in Business 43, Computer Networking Technology 43, Computer Information Systems 43, Computer Science 43, or English 43 may not receive credit. Strongly recommended: Eligibility for English 1A. 4 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

SPCH 46 ARGUMENTATION AND DEBATE
3 UNITS
Analysis of contemporary questions through written and spoken discourse. Analysis, criticism, and synthesis of contemporary moral, political, economic and philosophical issues of a diverse, multicultural society, using traditional and modern models of argumentation. Strongly Recommended: English 1A. 3 hours. AA/AS GE. Transfer: CSU, UC; CSU GE: A1 or A3; IGETC: $1 C$
Degree Applicable, Credit
Grading Option: OP
SPCH 48 ACTIVITIES IN FORENSICS
1-4 UNITS
Intercollegiate competition in the areas of public speaking and oral interpretation. Other activities include performance in workshops, festivals, concert readings, and the community. 4-16 hours. Transfer: CSU (May be taken 4times)
Degree Applicable, Credit
Grading Option: OP

## SURGICAL TECHNOLOGY

DEGREE CERTIFICATE

## About the Program

The Surgical Technology Program is a one-year special application program that begins during the Spring semester and extends through the following Summer term and Fall semester. During the course of the program, students learn the varied roles and responsibilities of the surgical technician. Students will experience the foundational academic coursework during the Spring semester as they refresh such subject areas as Anatomy, Physiology, Microbiology, and Physics and learning the use of a wide spectrum of instruments, supplies, equipment, and their role in patient care as a member of the surgical team. During the Summer term, students will experience coursework in surgical specialties, such as orthopedic and thoracic surgeries. In the Fall semester, students experience the actual role of the Surgical Technician as they spend 33 hours each week in the clinical setting working under the supervision of the surgical team practicing their skills during a wide range of surgical cases. For current accreditation information, consult the Surgical Technology website:
http://www.laspositascollege.edu/SURG/index.php.

## Degrees/Certificates

- Degree:
- AS - Surgical Technology
- Certificate of Achievement:
- Surgical Technology


## Career Opportunities

Students completing this one-year surgical technology program can expect to earn $\$ 44,616$ annually in the Bay Area. Experienced workers are able to earn over $\$ 56,388$ and substantially more given overtime and shift differentials. Surgical Technology is truly an occupation that provides a sustainable wage given the economic conditions.

## AS - Surgical Technology

Freshman Year
Health Science 55 (Orientation to Health Care) ...

Biology 31 (Introduction to College Biology)..

Anatomy 1 (General Human Anatomy).......................................................... 5
English 1A (Critical Reading and Composition)........................................... 3
Mathematics 65 (Elementary Algebra).......................................................... 5
Health Science 51A (Basic Medical Terminology) or
Health Science 52 (Basic Medical Terminology for Allied Health).3-4
Business 43 (Professional Communication) or
Computer Information Systems 43 (Professional Communication) or
Speech 43 (Professional Communication)..
... 4
Electives..
0-3
General Education Courses ${ }^{\S}$

## Sophomore Year

Surgical Technology 50 (Basic and Biomedical Sciences for Surgical Technology. 5
Surgical Technology 51 (Patient Surgical Care Concepts).. .....  12
Surgical Technology 52 (Surgical Specialties) .....  6
Surgical Technology 53 (Clinical Practice for Surgical Technology)........ 8Electives.0-3
General Education Courses ${ }^{\S}$
Total units required60
§Program-based General Education requirement: Anatomy 1 (General Human Anatomy)

Electives: Students are encouraged to select from a wide variety of courses of interest for a minimum of 2-3 units of unrestricted elective credit.

## Certificate of Achievement Surgical Technology

Surgical Technology 50 (Basic and Biomedical Sciences for Surgical Technology) 5
Surgical Technology 51 (Patient Surgical Care Concepts).. .....  12
Surgical Technology 52 (Surgical Specialties) .....  6
Surgical Technology 53 (Clinical Practice for SurBusiness 43 (Professional Communication) orComputer Information Systems 43 (Professional Communication ) orSpeech 43 (Professional Communication).

Total units required

## SURGICAL TECHNOLOGY (SURG)

## SURG 50 BASIC AND BIOMEDICAL SCIENCES FOR SURGICAL TECHNOLOGY

## 5 UNITS

The basic science part of this course reviews human anatomy as it relates to surgical procedures and is followed by an introduction to physiology and common disease states requiring surgical intervention. Further covered are the basic principles of medical microbiology with emphasis on infection control in the operating room. The biomedical science part of the course includes an introduction to conceptual physics, electricity and robotics to provide an understanding of the workings of surgical technology. The class is designed to prepare students for later clinical experience. Prerequisites: Anatomy 1 and Math 65, (both completed with a grade of " C " or higher) and Health Science 52 (may be taken concurrently). Strongly recommended: Eligibility for English 1A. 4 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: GR

## SURG 51 SURGICAL PATIENT CARE CONCEPTS

12 UNITS
This course consists of lectures and discussions of topics regarding the care of patients before, during, and after surgery and the role the surgical technologist plays in providing this care. Labs will cover the purpose, function, and applications of supplies and equipment such as surgical instruments, dressings, sutures, the operating room furniture, drains and catheters. An emphasis will be placed on the safety of patients and personnel with regards to potential hazards from the use
of lasers or electrical machines, chemicals, or infectious microorganisms. Students will explore theoretical concepts of physiological and pathophysiological functions and the interventions provided by the surgical team. Examples of these interventions include but are not exclusive to maintaining normal physiological parameters, and the control of hemorrhage. Additional discussion will cover the legal, ethical and professional issues that surround the practice of surgical technology. Prerequisite: Surgical Technology 50 (completed with a grade of "C" or higher). 6 hours lecture, 18 hours laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: GR

## SURG 52 SURGICAL SPECIALTIES <br> 6 UNITS

This course provides the student with a systematic approach to a given surgical procedure. Addressed in this course are the most common surgical procedures of General Surgery, Gynecological and Obstetrical Surgery, Genitourinary Surgery, Otorhinolaryngology, Ophthalmology, Plastic Surgery, Neurosurgery, Orthopedics, Cardiothoracic Surgery, Peripheral Vascular Surgery, Oral and Maxillofacial Surgery. For each surgical procedure, lectures, discussions, and demonstrations include but are not exclusive to the surgical anatomy and pathophysiology, anesthetic considerations, positions, prepping, supplies, equipment, instrumentation, specimens, wound closure, dressings, post-operative care and complications. Steps of the surgical procedures and their rationales are explained using multi-media. Prerequisite: Surgical Technology 51 (completed with a grade of "C" or higher). Corequisite: Surgical Technology 53. 6 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: GR

## SURG 53 CLINICAL PRACTICE FOR SURGICAL TECHNOLOGY

11 UNITS
This course consists of clinical experience in the operating room and provides students with the skills necessary to function as a beginning surgical technologist. Students will have exposure to the overall operation, policies, and procedures of practice. Under direct supervision and guidance of preceptors, students will gain proficiency in establishing and maintaining a sterile field, draping materials, use of needles, sutures and basic instrumentation, preparation and sterilization of supplies and anticipation of the surgeon's needs. Application of knowledge gained in previous courses will provide an opportunity for skill acquisition, safe practice, and the development of professional behaviors. Prerequisite: Surgical Technology 51 (completed with a grade " C " or higher). Corequisite: Surgical Technology 52. 33 clinical hours per week. Transfer: CSU (May be repeated 1 time).
Degree Applicable, Credit
Grading Option: GR

## THEATER ARTS <br> - DEGREE

## About the Program

The Theater Arts major is designed to provide knowledge, training, and practical experience in all aspects of theater arts. The curriculum provides the essential lower-division courses necessary for transfer to similar programs at four-year institutions, as well as assisting students towards employment in professional, academic and community theater.

## Transferability

This program fulfills typical lower-division requirements at four-year transfer institutions. Some variation in requirements may exist at a particular four-year college or university; therefore, it is essential that the student refer to the catalog of the prospective transfer institution and consult a counselor.

## AA - Theater Arts

## Freshman Year

Theater Arts 1A (Theory and Practice of Acting)........................................... 3
Theater Arts 1B (Theory and Practice of Acting) ......................................... 3
Select from the following courses for a total of 6 units:
Theater Arts 5 (Children's Theater) or
Theater Arts 30 (Drama Workshop) or
Theater Arts 46 (College Theater Management) or
Theater Arts 47 (College Theater Acting) or
Theater Arts 48 (College Theater Technical). ... 6
Theater Arts 10 (Introduction to Dramatic Arts). .....  3

General Education Courses

## Sophomore Year

Theater Arts 40 (Introduction to Technical Theater)***........................... 2
Select from the following courses for a total of 6 units:
Theater Arts 5 (Children's Theater) or
Theater Arts 30 (Drama Workshop) or
Theater Arts 46 (College Theater Management) or
Theater Arts 47 (College Theater Acting) or
Theater Arts 48 (College Theater Technical). ... 6

Related Discipline Electives**........................................................................ 3
General Education Courses:
Total units required. 60

## *Theater Arts Electives

Select from the following for a minimum of 3 units:
Theater Arts 3 (Improvisation)
Theater Arts 11 (Stage to Screen)
Theater Arts 12 (Film as Art and Communication)
Theater Arts 14 (Bay Area Theater)
Theater Arts 25 (Fundamentals of Stage Speech)
Theater Arts 39 (Musical Theater Workshop)

## **Related Discipline Electives

Select from any of the following 4 disciplines for a minimum of 3 units:

## Dance

Dance 1 (Dance Technique)
Dance 5 Dance Workshop)
Dance 6 (Dance Production)

## Mass Communications

Mass Communications: 33A (Introduction to Television Studio Operations)
Mass Communications 33B (Intermediate Television Studio Operations)

## Music

Music 6 (Basic Music Skills)
Music 23A (Elementary Voice I)
Music 23B (Elementary Voice II)
Music 33 (Study of Voice)
Music 39 (Musical Theater Workshop)
Music 42 (Vocal Repertoire)
Music 43 (Vocal Ensemble)
Music 44 (Concert Choir)
Music 45 (Chamber Choir)
Music 46 (Jazz Choir)

## Speech

Speech 2 (Oral Interpretation of Literature)
Speech 5 (Reader's Theater)

## Degrees/Certificates

AA - Theater Arts

## THEATER ARTS (THEA)

THEA 1A THEORY AND PRACTICE OF ACTING I 3 UNITS
An introduction to the techniques and theories of acting, explored through improvisation, exercises and scene study. Students should be able to demonstrate the following skills: development of the physical and psychological resources for acting including relaxation, concentration, creativity, believability, and commitment. Strongly recommended: Eligibility for English 1A. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: Cl
Degree Applicable, Credit
Grading Option: GR

THEA 1B THEORY AND PRACTICE OF ACTING II 3 UNITS
Continued exploration of the theory and practice of acting, focusing on more complex characterization and character analysis. Introduction to theatrical styles and period acting with emphasis on monologues and scenes. Prerequisite: Theater Arts 1A (completed with a grade of "C" or higher). 3 hours lecture. AA/AS GE. Transfer: CSU, UC.
Degree Applicable, Credit
Grading Option: GR

THEA 3 THEATER IMPROVISATION
3 UNITS
Introduction to Improvisation. Workshop exercises in theater experience through the operational structure of the game. Mimes, characterizations, scene setting, mood and material for extended ensemble improvisation. Recommended for non-theater as well as theater majors. 3 hours lecture. Transfer: CSU, UC (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
THEA 4 AMERICAN CULTURES IN THEATER 3 UNITS
The history, representation and contributions of various ethnic groups in American theater and the study of theater as an instrument for expressing and understanding cultural identity. The focus will be on: African American, Asian American, and Latino theater. Strongly Recommended: Eligibility for English 1A. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: Cl; IGETC: 3A
Degree Applicable, Credit
Grading Option: GR

THEA 5 CHILDREN'S THEATER
1-3 UNITS
Introduction to the techniques of formal children's theater. Creation and performance of a theatrical production designed for children. Casting subject to audition. 1-3 hours. Transfer: CSU; CSU GE: C1 (May be taken 4 times)
Degree Applicable, Credit Grading Option: OP

## THEA 10 INTRODUCTION TO DRAMATIC ARTS 3 UNITS

The dramatic arts, including the history, values, and theatrical techniques that have shaped them. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: C1; IGETC: 3A
Degree Applicable, Credit
Grading Option: GR
THEA 11 STAGE TO SCREEN
Major plays which subsequently have been made into films. Analysis of each playscript augmented by a viewing and analysis of the film adaptation. Major areas of concentration may vary from semester to semester. 2.5 hours lecture. 1.5 hours laboratory. Transfer: CSU, UC; CSU GE: Cl; IGETC: 3A
Degree Applicable, Credit
Grading Option: GR

## THEA 12 FILM AS ART AND COMMUNICATION

Introduction to film as an art form and means of communication. Film history, elements of the film making process, major film traditions and genres. 4 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: C1; IGETC: 3A
Degree Applicable, Credit
Grading Option: GR

THEA 14 BAY AREA THEATER
1-3 UNITS
Appreciation of theatrical performances through reading, evaluating and attending live productions. Specific content is determined by currently available theatrical productions. 2.5 hours lecture. 1.5 hours laboratory. Transfer: CSU, UC; CSU GE: Cl; IGETC: Area 3A (May be taken 2 times) Degree Applicable, Credit

Grading Option: GR

THEA 25 FUNDAMENTALS OF STAGE SPEECH 3 UNITS
Theory and practice of speech improvement for acting with emphasis on development of the voice, articulation, and pronunciation for theater production. 3 hours lecture. Transfer: CSU, UC; CSU GE: Cl Degree Applicable, Credit

Grading Option: GR

## THEA 30 DRAMA WORKSHOP

1-3 UNITS
Participation in experimental workshop plays, original student scripts, and other projects, possibly leading to scheduled performances. Casting subject to audition. 3-9 hours laboratory. Transfer: CSU, UC (May be taken 4 times)
Degree Applicable, Credit
Grading Option: GR

## THEA 39 MUSICAL THEATER WORKSHOP <br> 3 UNITS

Training in performance skills for the musical theater, with emphasis on acting and stage movement. Corequisite: Music 39. 3 hours lecture Transfer: CSU, UC (May be taken 4 times)
Degree Applicable, Credit
Grading Option: GR

## THEA 40 INTRODUCTION TO TECHNICAL THEATER 2 UNITS

Introduction to the technical aspects of theatrical production, including theater architecture and scenic design, set construction and painting, drafting and rendering, production organization, lighting and sound design. 1 hour lecture, 3 hours laboratory. Transfer: CSU, UC; CSU GE: C1 Degree Applicable, Credit

Grading Option: GR

## THEA 41 PASSPORT TO THEATER

1-6 UNITS
Supervised participation in scheduled performances of the theater department as an actor or backstage worker. Hour value to be determined by the instructor, after audition, based upon the scope of the performance of technical assignment. Enrollment is for the duration of the rehearsals and performances. 3-18 hours. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

THEA 46 COLLEGE THEATER MANAGEMENT 1-2 UNITS
Participation in the business operation of scheduled productions in theater. Enrollment is for the duration of the production. 3-6 hours laboratory each. Transfer: CSU (May be repeated; limit 8 units) Degree Applicable, Credit

Grading Option: OP

## THEA 47 COLLEGE THEATER ACTING <br> 1-6 UNITS

Participation in cast of scheduled major production. Enrollment is for the duration of the production. Enrollment by audition only. 3-18 hours laboratory. AA/AS GE Transfer: CSU, UC (May be repeated; limit 24 units) Degree Applicable, Credit

Grading Option: OP

## THEA 48 COLLEGE THEATER TECHNICAL

1-6 UNITS
Participation in scheduled productions as crew members and/or constructing its technical elements. Enrollment is for the duration of the production. 3-18 hours laboratory. AA/AS GE Transfer: CSU, UC (May be repeated; limit 24 units)
Degree Applicable, Credit
Grading Option: OP

## TUTORING


#### Abstract

About the Program

The Las Positas College Tutorial program offers LPC students free tutoring in many of the classes offered. It is dedicated to students' educational success and seeks to create active and independent learners. All tutors must take a training class at the beginning of their tutorial experience in order to properly manage tutorial sessions, understand the ethics of tutoring, enhance communication and listening skills, understand learning styles, and avoid common mistakes in tutoring. Tutor training is conducted through a variety of educational means to best meet the schedules and learning needs of the tutors. Advanced levels of training are available for those wishing to learn more about learning disabilities, leadership, and innovative techniques. Students who pass college classes with an " $A$ " or " $B$ " grade, receive an instructor recommendation, and enjoy working with people are encouraged to apply for tutoring positions. Tutoring may be done for pay, volunteer, or college credit.


## TUTORING (TUTR)

TUTR 15 TRAINING FOR TUTORS
2 UNITS
Training for college tutors to acquire specific skills and techniques for tutoring in academic and vocational subject matter areas and basic skills. Required course for tutors participating in the College's Tutorials Instructional Program. 2 hours.
Degree Applicable, Credit Grading Option: P/N

## TUTR 17 TUTOR TRAINING

. 5 UNITS
An introduction to tutoring and tutoring skills. The course will provide a conceptual frame work of tutoring to guide student's work in leading effective tutoring sessions. Total of 3 lecture hours and 25 laboratory hours per semester. Transfer: CSU
Degree Applicable, Credit
Grading Option: P/N

## TUTR 29 INDEPENDENT STUDY-TUTORING

.5-2 UNITS
A practical experience to help other students learn and succeed in school-related activities. Provides opportunities to gain experience in the field of education in preparation for making career choices. For . 5 unit, .5 lecture hour, 1 hour tutoring; for 1 unit, 1 hour lecture, 2 hours tutoring; for 2 units, 1 hour lecture, 4 hours tutoring. Transfer: CSU (May be repeated 3 times)
Degree Applicable, Credit Grading Option: P/N

TUTR 200 SUPERVISED TUTORING
0 UNITS
Individualized student tutoring (supplemental learning assistance) provided to students requesting assistance or referred by a counselor or an instructor. Trained tutors and instructors will provide tutoring in basic skills, academic and vocational subject matter areas. Hours variable. (No Limit)
Non-degree Applicable, Non-credit Grading Option: P/N

# UNIVERSITY TRANSFER 

\author{

- CERTIFICATE <br> For more information, see a counselor.
}


## University Transfer - IGETC <br> (Intersegmental General Education Transfer Curriculum)

Students transferring to University of California or California State University have the opportunity to complete their lower division general education requirements at Las Positas College. This pattern of general education requires a minimum of 34 semester units to be completed. The Certificate of Achievement in University Transfer IGETC will officially acknowledge a significant educational achievement the student has completed at Las Positas College. The list of approved courses may be found on page 43. Counselor assistance is advised.

## IGETC Areas

Semester Units (minimum)

## Area 1

English Communication (2-3 courses)................................ 6 (UC) or 9 (CSU)

## Area 2

Mathematical Concepts and Quantitative Reasoning (1 course) ...... 3

## Area 3

Arts and Humanities (3 courses)................................................................... 9
Area 4
Social and Behavioral Sciences (3 courses)....................................................... 9
Area 5
Physical Science and Biological Science (2 courses) .... 7

## Area 6

Language Other Than English (UC only, 0-1 course) ............................. 0-5

## CSU Graduation Requirement

U.S. History, Constitution and American Ideals (0-2 courses)*.. 0-7
*Courses may be also applied to Area 4
Total Units (minimum). .. 34

Earning this Certificate of Achievement will not replace the "IGETC Certification" document. The "Certification of IGETC" is a separate process. The student must request IGETC Certification in the Counseling Office after admission to the transfer institution.

## CERTIFICATE

For more information, see a counselor.

## University Transfer - <br> CSU General Education Breadth

Students transferring to the California State University have the opportunity to complete their lower division general education requirements at Las Positas College. This pattern of general education requires a minimum of 39 semester units to be completed. The Certificate of Achievement in University Transfer - CSU General Education Breadth will officially acknowledge a significant educational achievement the student has completed at Las Positas College. The list of approved courses may be found on pages 44-45. Counselor assistance is advised.

# UNIVERSITY TRANSFER - 

CSU - General Education Areas

## Area A

English Language Communication and Critical Thinking (3 courses)..

## Area B

Scientific Inquiry and Quantitative Reasoning
(3 courses).

## Area C

Arts and Humanities
(3 courses)..

## Area D

Social Sciences
(3 courses)..9

## Area E

Lifelong Learning and Self Development
(1-2 courses)3
CSU Graduation Requirement

US History, Constitution and American Ideals.0-7

(0-2 courses)*
*Courses may also be applied to Area D
Total Units (minimum). 39

Earning this Certificate of Achievement will not replace the "CSU GE Certification" document. The "Certification of CSU General Education Breadth" is a separate process. The student must request CSU GE Certification in the Counseling Office after admission to the transfer institution.

## VISUAL

## COMMUNICATIONS

DEGREE CERTIFICATE

## About the Program

The Visual Communications (VCOM) program encompasses all the visual arts-drawing, painting, photography-but instead of traditional tools and media, students use computers and industry standard software. All areas of design and composition, typography, photographic specification and manipulation, drawing, print and web page layout, and an array of technical skills using the newest versions of Illustrator, Photoshop, InDesign, Acrobat, Dreamweaver and Flash are taught through project-based work. Starting at the intermediate level, students gain direct experience creating client-based work for print, web or screen, contracted through VCOM's business, the Design Shop. In terms of vocation, VCOM students develop a broad base of creative, technical, aesthetic and practical business skills while building a professional-level portfolio. Certificate graduates are ready to enter the field of visual communications design; degree graduates often transfer to a four-year college. Please visit our websites for more information about the program: http://lpcdesignshop.com/vcom/ and the Design Shop, http://lpcdesignshop.com/

Skills development courses, mainly designed for professionals who wish to learn new technical skills, or ramp up skills in the latest versions of our software, and those wishing to explore the field, should refer to courses denoted " 100 " and above. These courses have identical content to, and are scheduled simultaneously with,
corresponding degree and certificate courses. Most prerequisites have been relaxed to allow ease of access. Refer to specific course descriptions for details of skills necessary for success.

## See also: Art, Photography

## Degrees/Certificates

- Degree:
- AA - Visual Communications
- Certificates of Achievement:
- Visual Communications, Emphasis in Print
- Visual Communications, Emphasis in Web


## AA - Visual Communications

Freshman Year
Visual Communications 48 (Introduction to a Design Studio).............. 0.3
Visual Communications 50 (Visual Communications
and the Process of Design).
Visual Communications 51 (Color for Design)............................................ 2
Visual Communications 52 (Introduction to Typography) ......................... 3
Visual Communications 53 (Photoshop I for Design).................................. 2
Visual Communications 54 (Illustrator I for Design) ................................... 2
Visual Communications 55 (Web Design I) .................................................... 3
Visual Communications 56 (Design Concepts I) ........................................ 3
General Education Courses

## Sophomore Year

Visual Communications 57 (Design Concepts II) ............................................... 3
Visual Communications 58 (Photoshop II for Design) or
Visual Communications 59 (Illustrator II for Design)
Visual Communications 60 (Creative Portfolio and Self-Promotion).... 3
Visual Communications 64 (InDesign I and Layout Techniques).............. 3
General Education Courses
Total units required

## Certificate of Achievement <br> Visual Communications

Visual Communications 48 (Introduction to a Design Studio) ............. 0.3
Visual Communications 50 (Visual Communications and the Process of Design) 2
Visual Communications 51 (Color for Design) .....  2
Visual Communications 52 (Introduction to Typography) .....  3
Visual Communications 53 (Photoshop I for Design) .....  2
Visual Communications 54 (Illustrator I for Design) .....  2
Visual Communications 55 (Web Design I) .....  .3
Visual Communications 56 (Design Concepts I) .....  3
Visual Communications 57 (Design Concepts II) .....  3
Visual Communications 58 (Photoshop II for Design) orVisual Communications 59 (Illustrator II for Design) 3
Visual Communications 60 (Creative Portfolio and Self-Promotion).... 3Total Units Required34.3-42.3
*To receive a Certificate Emphasis in Print or Web, complete 1 of the 2 Visual Communications Options for a minimum of 8 units.

## Option 1 - Emphasis in Multimedia

Visual Communications 62** (Web Design II)
Visual Communications 63** (Web Site and Multimedia Production)
Visual Communications 63IN** (Internship in Web Site and Multimedia Production)

## Option 2 - Emphasis in Print

Visual Communications 64** (InDesign I and Layout Techniques) Visual Communications 65** (Electronic Pre-Press and Print Production) Visual Communications 65IN** (Internship in Electronic Pre-Press and Print Production)
**Students may receive an additional Certificate if they complete both options: Emphasis in Multimedia, VCOM 63 and 63 IN and Emphasis in Print, VCOM 65 and 651 N

## VISUAL COMMUNICATIONS (VCOM)

VCOM 40 DESIGN SHOP: THE BUSINESS OF DESIGN 3 UNITS
The Design Shop business of the Visual Communications program creates work for clients on the Las Positas College campus and in the Tri-Valley community at large. This course is designed for students who are ready to produce client-based work in print and/or for the web prior to seeking employment and/or applying for transfer to a 4 -year institution. Students work one-on-one or in a team with the client while refining leadership skills and the full range of visual, oral and written techniques needed to produce industry standard clientbased work. Students develop creative print and/or web solutions that meet the full scope of the client's needs and that are of a quality that demonstrates the individual or team's work at industry-standard level. Strongly recommended: Visual Communications 57, 58, 59, 62, and 64. 2 hours lecture, 4 hours studio. Transfer: CSU

Degree Applicable, Credit
Grading Option: OP

## VCOM 48 INTRODUCTION TO A DESIGN STUDIO 0.3 UNITS

A self-paced basic skills tutorial course introducing software, hardware and peripheral equipment available in a design studio. Emphasis is placed on navigating the desktop, server and back-up media crossplatform, (Apple and PC operating systems); using and saving documents and folders to industry standards; downloading and saving images from a camera or reader; and accessing fonts and "Help" if unassisted. 12 total studio hours. Transfer: CSU (May be taken two times) Degree Applicable, Credit

Grading Option: OP

## VCOM 50 VISUAL COMMUNICATIONS AND THE PROCESS OF DESIGN

2 UNITS
Introduction to the vocation of visual communication and the creative processes, methods and tools used in developing concepts and final designs for print or web. Emphasis is placed on exploring the conceptual design process, learning the language of design, and basic level technical skills and techniques used across industry standard software, cross-platform operating systems, and hardware. Strongly Recommended: Visual Communications 48. 16 hours lecture, 64 hours studio. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
VCOM 51 COLOR FOR DESIGN
2 UNITS
A basic-level course highlighting color as an element for communication and expression in all visual fields. Covers key color systems and their relevance to graphic and other visual arts, creative and technical aspects of color available in the Adobe Creative Suite applications including color expression, color theory, color interaction, color psychology, color perception, using color for an ethnically diverse, international audience, color theories, color trends, color reproduction, pre-press and screen view considerations. Strongly Recommended: Visual Communications 48. 16 hours lecture, 64 hours studio. Transfer: CSU, UC Degree Applicable, Credit

Grading Option: OP

VCOM 52 INTRODUCTION TO TYPOGRAPHY
3 UNITS
This course examines letterforms and fundamental typographic principles, with emphasis on the vocabulary of typographic form and its relationship to message/purpose in graphic design. Typography is the backbone of graphic design, and the ability to design effectively
with type is essential for a graphic designer. Course includes applied history and theory highlighting type as an element for communication and expression, exploration of appropriate use of type families,
type trends and typographic design used for an ethnically diverse, international audience. In-class focus on the mechanics of type design, type legibility, visual appropriateness, and project-based work exploring creative and technical aspects involved in designing text using the newest versions of Adobe Creative Suite software. Strongly recommended: Visual Communications 50. 2 hours lecture, 4 hours studio. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

## VCOM 53 PHOTOSHOP I FOR DESIGN <br> 2 UNITS

Technical and skill development course using the latest version of Photoshop at the basic-to intermediate-level to create and manipulate digital paintings, photographs and illustrations. Emphasis on basic- to intermediate-level techniques and tools used to create image files suitable for print and screen. Design principles emphasized to create effective output through computer-based composition. Strongly recommended: Visual Communications 48. 1 hour lecture, 4 hours studio. Transfer: CSU (May be taken two times)
Degree Applicable, Credit
Grading Option: OP

VCOM 54 ILLUSTRATOR I FOR DESIGN
2 UNITS
Technical and drawing skill development course using the latest version of Illustrator at the basic- to intermediate-level to render 2- and 3-D digital drawings and illustrations. Emphasis on basic- to intermediate-level techniques and tools used to create image files suitable for print and screen. Design principles emphasized to create effective output through computer-based composition. Strongly recommended: Visual Communications 40. 1 hour lecture, 4 hours laboratory. Transfer: CSU (May be taken two times)
Degree Applicable, Credit
Grading Option: OP

## VCOM 55 WEB DESIGN I

## 3 UNITS

This basic-level web design course takes a visual communications approach to the creation of web sites, and the fundamental techniques required to format text, illustrations, tables, and images for the web. Emphasis is placed on appropriate design for the web-beginning with a graphic user interface that is functional, logical, and attractive, and bringing the concept to life using the latest versions of Dreamweaver. Also included is a brief overview of html code, cascading style sheets, and detailed instruction of how to use Dreamweaver to create web content. Strongly recommended Visual Communications 51 and either Visual Communications 53 or Visual Communications 54. 2 hours lecture, 4 hours studio. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

VCOM 56 DESIGN CONCEPTS I
3 UNITS
Design and skills development course exploring the creative processes, methods, strategies and tools used in developing concepts and final designs in any visual field including the basic elements of design: line, texture, value, shape, color, light, and spatial concepts Emphasis is placed on experience applying design principles and conventions to create 2-dimensional work. Use of computers as digital design tool along with basic manual techniques relating to effective preparation, presentation, craftsmanship and professionalism in presentation. Strongly recommended: Visual Communications 51 and Visual Communications 52 and either Visual Communications 53 or Visual Communications 54. 2 hours lecture, 4 hours studio. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

VCOM 57 DESIGN CONCEPTS I
3 UNITS
Design and technical skills intermediate - level course in the creative processes, methods and tools used from concept to final design for commercial purposes in print and web (e.g., logos, related brand symbols, collateral materials, simple business publications, print
and screen advertising, and packaging.) Emphasis is placed on the designer/client relationship, designing compelling graphics specifically to client project brief and to target audience, conducting research, presenting concept and final design, meeting deadlines, producing industry-standard digital documents, and working individually and in teams. Course includes designing minimum of one major project contracted through the Design Shop-the Visual Communications Program business that mirrors an industry-standard creative design agency. Design Shop client attends class to participate in briefing, Q \& A, concept presentation, feedback and critique sessions. Prerequisite: Visual Communications 53 or 54 and Visual Communications 56 (completed with a grade of " $C$ " or higher). 2 hours lecture, 4 hours studio. Transfer: CSU
Degree Applicable, Credit Grading Option: OP

VCOM 58 PHOTOSHOP II FOR DESIGN
3 UNITS
Technical and design skill development course using Photoshop CS2 at the intermediate to advanced-level to create and manipulate images, illustrations, text and animations. Emphasis on intermediate- through advanced-level techniques and tools used to create or manipulate image files suitable for print and screen. Design principles emphasized to create effective output through computer-based composition. Course includes minimum of one project contracted through the Design Shop-the Visual Communications Program business that mirrors an industry-standard creative design agency. Design Shop client attends class to participate in briefing, Q \& A, presentation, feedback and critique sessions. Prerequisite: Visual Communications 53 (completed with a grade of "C" or higher). Strongly recommended: Visual Communications 50 and Visual Communications 51 and Visual Communications 522 hours lecture, 4 hours studio. Transfer: CSU Degree Applicable, Credit

Grading Option: OP
VCOM 59 ILLUSTRATOR II FOR DESIGN
3 UNITS
Technical and design skill development course using Illustrator CS2 at the intermediate to advanced-level to render 2- and 3-D digital drawings, illustrations, graphs and animations. Emphasis on intermediate- through advanced-level techniques and tools used to create image files suitable for print and screen. Design principles emphasized to create effective output through computer-based composition. Course includes minimum of one project contracted through the Design Shop-the Visual Communications Program business that mirrors an industry-standard creative design agency. Design Shop client attends class to participate in briefing, Q \& A, presentation, feedback and critique sessions. Prerequisite: Visual Communications 54 (completed with a grade of " C " or higher). Strongly recommended: Visual Communications 50 and Visual Communications 51 and Visual Communications 52.2 hours lecture, 4 hours studio. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## VCOM 60 CREATIVE PORTFOLIO AND SELF-PROMOTION

3 UNITS
Design and technical skills intermediate - level course in the creative processes, methods and tools used from concept to final design for commercial purposes in print and web (e.g., logos, related brand symbols, collateral materials, simple business publications, print and screen advertising, and packaging.) Emphasis is placed on the designer/client relationship, designing compelling graphics specifically to client project brief and to target audience, conducting research, presenting concept and final design, meeting deadlines, producing industry-standard digital documents, and working individually and in teams. Course includes designing minimum of one major project contracted through the Design Shop-the Visual Communications Program business that mirrors an industry-standard creative design agency. Design Shop client attends class to participate in briefing, Q \& A, concept presentation, feedback and critique sessions. Strongly recommended: Visual Communications 55, 57, 58, and 59. 2 hours lecture, 4 hours studio. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

VCOM 62 WEB DESIGN II
3 UNITS
Technical and design skill intermediate- through advanced-level course in creation of web sites including user interface considerations, and Cascading Style Sheets techniques. Emphasis placed on functional, logical, attractive, accessible and appropriate web site design for the client and end-user. Including intermediate- through advanced-level techniques and tools required to format text, create animations and other content for the web. Programs covered are latest versions of Dreamweaver and Flash, Adobe GoLive. Course includes minimum of one project contracted through the Design Shop-the Visual Communications Program business that mirrors an industry-standard creative design agency. Design Shop client attends class to participate in briefing, Q \& A, presentation, feedback and critique sessions. Prerequisite: Visual Communications 55 (completed with a grade of " C " or higher). 2 hours lecture, 4 hours studio. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## VCOM 63 WEBSITE AND MULTIMEDIA PRODUCTION 3 UNITS

 Culminating class in study of technical and creative design techniques necessary to build industry-standard interactive multimedia products. Course includes individual and team-based projects and corresponding work experience internship through the internship co-requisite class. Upon completion, students should be able to show mastery of creative process and technology necessary to produce individual- and team-based web work to client and industry specifications. This course provides students with professional design work experience within Las Positas College and the surrounding community including participation in client briefing, Q \& A, presentation, feedback and critique sessions. Course includes minimum of two web projects contracted through the Design Shop-the Visual Communications Program business that mirrors an industry-standard creative design agency. Prerequisite: VCOM 62 (completed with a grade of " $C$ " or higher), Corequisite: VCOM 63IN. 2 hours lecture, 4 hours studio. Transfer: CSU Degree Applicable, CreditGrading Option: OP

## VCOM 63IN INTERNSHIP FOR WEBSITE AND MULTIMEDIA PRODUCTION

2 UNITS
This course provides students with professional design work experience through a directed and evaluated internship within Las Positas College and the surrounding community. On-the-job training through the LPC Design Shop and sometimes other workplaces in the community provides students the opportunity to learn first hand responsibilities including deadlines, employer demands, bidding, pricing, working one-on-one with a client, and becoming familiar with advertising agencies, design studios, service bureaus, print or multimedia production houses. Prerequisite: VCOM 62 (completed with a grade of "C" or higher). Corequisite: VCOM 63. 1 hour lecture, 4 hours studio. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
VCOM 64 INDESIGN I AND LAYOUT TECHNIQUES 3 UNITS
An introductory- through intermediate- level course emphasizing layout and typographical, technical and aesthetic skills using the latest version of Adobe InDesign, CS2, for print and other media. This course addresses migrating to InDesign from Quark or Pagemaker, and how InDesign CS2 can be used to increase productivity and workflow when working in applications in the Adobe Creative Suite. Course includes minimum of one project contracted through the Design Shop-the Visual Communications Program business that mirrors an industrystandard creative design agency. Design Shop client attends class to participate in briefing, $\mathrm{Q} \& \mathrm{~A}$, presentation, feedback and critique sessions. Prerequisite: Visual Communications 52 (completed with a grade of " $C$ " or higher.) Strongly recommended: Visual Communications 51 and 52 and either Visual Communications 53 or 54 . 2 hours lecture, 4 hours studio.Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## VCOM 65 ELECTRONIC PRE-PRESS AND PRINT PRODUCTION

3 UNITS
Culminating class in study of technical and creative design techniques necessary to produce accurate prepress files used to produce finished printed materials. Upon completion, students should be able to show mastery of the creative process and technical skills necessary to produce individual- and team-based single- and multi-page print work to client and industry specifications. This course provides students with professional prepress and print work experience within Las Positas College and the surrounding community including participation in client briefing, Q \& A, presentation, feedback and critique sessions. Course includes minimum of two large print materials projects contracted through the Design Shop-the Visual Communications Program business that mirrors an industry-standard creative design agency. Prerequisite: VCOM 64 (completed with a grade of "C" or higher). Corequisite: VCOM 65IN. 2 hours lecture, 4 hours studio. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## VCOM 65IN INTERNSHIP FOR ELECTRONIC PRE-PRESS

 AND PRINT PRODUCTION2 UNITS
This course provides students with professional design work experience through a directed and evaluated internship within Las Positas College and the surrounding community. On-the-job training through the LPC Design Shop and sometimes other workplaces in the community provides students the opportunity to learn first hand responsibilities including deadlines, employer demands, bidding, pricing, working one-on-one with a client, and becoming familiar with advertising agencies, design studios, service bureaus, print or multimedia production houses. Prerequisite: VCOM 64 (completed with a grade of "C" or higher). Corequisite: VCOM 65. 1 hour lecture, 4 hours studio. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## VCOM 150-166 TECHNICAL SKILLS COURSES FOR PROFESSIONALS

Skills development courses, mainly designed for professionals and community members who wish to learn new technical skills, or ramp-up skills in the latest versions of Adobe Creative Suite software, are denoted "150" and above. These courses provide ease of access with no prerequisites, have identical content, and are scheduled simultaneously with corresponding degree and certificate courses. Most prerequisites have been relaxed to allow ease of access. Please refer to specific course descriptions for details of skills necessary for success.
Degree Applicable, Credit
Grading Option: P/N

## VITICULTURE

## DEGREE CERTIFICATE

## About the Program

The program options in the Viticulture and Winery Technology Program are designed to prepare students for careers in the wine industry. VWT students may enter the program at the level most suited to their needs and take as few or as many courses as they need to meet their objectives.

There are both Certificates and Associate in Science Degrees available to provide students with the knowledge and skills essential for success. Students are also able to pursue their studies in either of two
tracks: Viticulture (grape growing) or Enology (wine making) by taking a series of production-oriented courses. Students may also elect to complete an Associate in Science degree in either Viticulture or Enology.

## Degrees/Certificates

- Degrees
- AS - Enology
- AS - Viticulture
- Certificates of Achievement:
- Enology
- Viticulture


## Career Opportunities

The program emphasizes the application of viticulture and winemaking theory for decision-making in actual production situations. The Viticulture and Winery Technology Program prepares students for direct entry in the wine industry upon completion of their course of study at Las Positas College. Also, students currently employed in the wine industry may upgrade and update their skills and knowledge, and those with a general interest in wines, pairing wine and food, and viticulture and grapevines may take classes for enjoyment and further knowledge.

## Transferability

In addition, a track is available for students interested in transferring to a four-year institution.

## See also: Horticulture

## AS - Viticulture

## Freshman Year

Viticulture and Winery Technology 10 (Introduction to Viticulture) or Horticulture 70 (Introduction to Viticulture) ........................................... 3 Viticulture and Winery Technology 12 (Vineyard Soils, Fertilizers and Irrigation) .3
Viticulture and Winery Technology 14 (Applied Viticultural Practices).... 3Viticulture and Winery Technology 33(Summer Viticulture Operations) .3
Biology 10** (Introduction to the Science of Biology) or Biology 31** (Introduction to College Biology) or Botany $1^{* *} \S($ General Botany) ..... 4-5

Chemistry 30A** (Introduction and Applied Chemistry) or Geography 1** (Introduction to Physical Geography) and Geography 1L** (Introduction to Physical Geography Lab) or Geography 15** (Introduction to Geographic Information Systems)3-4
General Education Courses §

## Sophomore Year

Viticulture and Winery Technology 20 (Introduction to Enology)......... 3
Viticulture and Winery Technology 31 (Vineyard Operations I)............... 3
Viticulture and Winery Technology 32 (Vineyard Operations II).............. 3
Viticulture and Winery Technology 35 (Vineyard Pest and Disease Management) 3

Viticulture and Winery Technology 29 (Independent Study) or Work Experience 95 (Occupational Work Experience Education) and Work Experience 96 (Work Experience Seminar) 2-4

General Education Courses §
Total Units Required 60
§Program-based General Education requirement:
BOTN 1 (General Botany)

## *Electives

Select from the following for a minimum of 2 units.
Viticulture and Winery Technology 38 (Vineyard Management)
Viticulture and Winery Technology 47 (Wine Regions and
Wines of California)
Viticulture and Winery Technology 48 (Winery Management) Viticulture and Winery Technology 50 (Wine Marketing and Sales)
**Meets General Education Requirements

## Certificate of Achievement Viticulture

Viticulture and Winery Technology 10 (Introduction to Viticulture) or Horticulture 70 (Introduction to Viticulture)............................................. 3
Viticulture and Winery Technology 12 (Vineyard Soils, Fertilizers and Irrigation) $\qquad$
Viticulture and Winery Technology 14 (Applied Viticultural Practices) $\qquad$
Viticulture and Winery Technology 20 (Introduction to Enology)......... 3
Viticulture and Winery Technology 31 (Vineyard Operations I)............... 3
Viticulture and Winery Technology 32 (Vineyard Operations II)............. 3
Viticulture and Winery Technology 33
(Summer Viticulture Operations).............................................................. 3
Viticulture and Winery Technology 35 (Vineyard Pest and Disease Management). $\qquad$ .3

Biology 31 (Introduction to College Biology) or Botany 1 (General Botany)$.4-5$

Chemistry 30A (Introductory and Applied Chemistry) or Geography 1 (Introduction to Physical Geography) and Geography 1L (Introduction to Physical Geography Lab) or Geography 15 ((Introduction to Geographic Information Systems)3-4
Viticulture and Winery Technology 29 (Independent Study) or Work Experience 95 (Occupational Work Experience Education) and Work Experience 96 (Work Experience Seminar).................................2-4
Electives*.
.2-3
Total Units Required .34-39 Units

## *Electives

Select from the following for a minimum of 2 units:
Viticulture and Winery Technology 38 (Vineyard Management)
Viticulture and Winery Technology 47 (Wine Regions and Wines of California)
Viticulture and Winery Technology 48 (Winery Management)
Viticulture and Winery Technology 50 (Wine Marketing and Sales)

## AS - Enology

## Freshman Year

Viticulture and Winery Technology 20 (Introduction to Enology)......... 3 Viticulture and Winery Technology 25 (Sensory Analysis of Wine)....... 3
Chemistry 30A** (Introductory and Applied Chemistry) .......................... 4
Chemistry 30B (Introductory and Applied Chemistry) ................................ 4
Biology 10** (Introduction to the Science of Biology) or
Biology 31** (Introductory to College Biology) .... 4

General Education Courses§

## Sophomore Year

Viticulture and Winery Technology 10 (Introduction to Viticulture) or Horticulture 70 (Introduction to Viticulture). $\qquad$ Viticulture and Winery Technology 41 (Winery Operations I)................. 3 Viticulture and Winery Technology 42 (Winery Operations II) ............... 3 Viticulture and Winery Technology 44 (World Viticulture and Wines) 3

Viticulture and Winery Technology 45 (Food and Wine Pairing).............. 1 Viticulture and Winery Technology 29 (Independent Study) or

Work Experience 95 (Occupational Work Experience Education) and
Work Experience 96 (Work Experience Seminar) ................................-4
Electives*
0-2
General Education Courses§
Total Units Required
§Program-based General Education 3 unit requirement.
See a counselor.

## *Electives

Select from the following for a minimum of 2 units:
Viticulture and Winery Technology 38 (Vineyard Management)
Viticulture and Winery Technology 47 (Wine Regions and Wines of California)
Viticulture and Winery Technology 48 (Winery Management)
Viticulture and Winery Technology 50 (Wine Marketing and Sales)
**Meets General Education Requirements

## Certificate of Achievement Enology

Viticulture and Winery Technology 10 (Introduction to Viticulture) or Horticulture 70 (Introduction to Viticulture). 3

Viticulture and Winery Technology 20 (Introduction to Enology)......... 3
Viticulture and Winery Technology 25 (Sensory Analysis of Wine) ...... 3
Viticulture and Winery Technology 41 (Winery Operations I) .................. 3
Viticulture and Winery Technology 42 (Winery Operations II) ............... 3
Viticulture and Winery Technology 44 (World Viticulture and Wines).
Viticulture and Winery Technology 45 (Food and Wine Pairing)
Biology 10 (Introduction to the Science of Biology) or
Biology 31(Introduction to College Biology). 4
Chemistry 30A (Introductory and Applied Chemistry) .....  4
Chemistry 30B (Introductory and Applied Chemistry) .....  4
Viticulture and Winery Technology 29 (Independent Study) or
Work Experience 95 (Occupational Work Experience Education) and
Work Experience 96 (Work Experience Seminar). ..... 2-4
Electives* ..... 2-3

Total Units Required 35-38 Units

## *Electives

Select from the following for a minimum of 2 units:
Viticulture and Winery Technology 38 (Vineyard Management)
Viticulture and Winery Technology 47 (Wine Regions and Wines of California)
Viticulture and Winery Technology 48 (Winery Management)
Viticulture and Winery Technology 50 (Wine Marketing and Sales)

## Viticulture and Enology <br> Preparation for Students Transferring to UC Davis

## First Year

Chemistry 1A (General College Chemistry)................................................... 5
Chemistry 1B (General College Chemistry)................................................. 5
Viticulture and Winery Technology 10 (Introduction to Viticulture)..... 3
Viticulture and Winery Technology 20 (Introduction to Enology)......... 3 English 1A (Critical Reading and Composition) $\qquad$
$\qquad$
Mathematics 1 (Analytic Geometry and Calculus .3Mathematics 2 (Analytic Geometry and Calculus II) 5

General Education Requirements*

## Second Year

Physics 2A (Introduction to Physics I)............................................................ 4
Physics 2B (Introduction to Physics II).......................................................... 4
Biology 1 (Introduction to Cell Biology)...................................................... 5
Botany 1 (General Botany). .5
Chemistry 12A (Organic Chemistry)5
Chemistry 12B (Organic Chemistry). .....  5
Speech 1 (Fundamentals of Speech Communication) .....  3
General Education Requirements**Students are advised to consult with a counselor for advice about theappropriate General Education pattern of courses
Viticulture and Enology
Preparation for Students Transferring to CSU Fresno
First Year
Chemistry 1A** (General College Chemistry). .....  5
Chemistry 1B (General College Chemistry). ..... 5
Viticulture and Winery Technology 10 (Introduction to Viticulture)..... 3
Viticulture and Winery Technology 20 (Introduction to Enology)......... 3 ..... 3
English 1A (Critical Reading and Composition).
Biology 31** (Introduction to College Biology. ..... 4
Mathematics 45 (College Algebra) or
Mathematics 42A (Introduction to Probability and Statistics)** .....  3
General Education Requirements*
Second Year
Physics 10 (Descriptive Physics) .....  3
Physics 10L (Descriptive Physics Laboratory). .....  1
Botany 1 (General Botany). .....  5
Chemistry 12A (Organic Chemistry).. .....  5
Chemistry 12B (Organic Chemistry) .....  5
Speech 1 (Fundamentals of Speech Communication) ..... 3
General Education Requirements*
*Students are advised to consult with a counselor for advice about the appropriate General Education pattern of courses.

## VITICULTURE AND WINERY TECHNOLOGY (VWT)

VWT 10 INTRODUCTION TO VITICULTURE
An introduction to viticulture; growing grapes, including historical aspects of grape cultivation for raisins, wine and table grapes, grape species and varieties; botany, anatomy, propagation, climate, cultivation, vineyard management, plant-soil-water relations, irrigation, fertilization, pruning, weed, insect, pest and disease control; establishment, training and pruning grape vines, harvest and post harvest operations. Brief overview of wine making. Students who have completed Horticulture 70 may not receive credit. 3 hours lecture.
Transfer: CSU, UC.
Degree Applicable, Credit
Grading Option: OP

VWT 12 VINEYARD SOILS, FERTILIZERS AND IRRIGATION 3 UNITS Introduction to the basic principles of soil science, mineral nutrition, components installation, and plant/water relationships for grape production. Planning, design and maintenance of sprinklers and drip irrigation systems for winery vineyards. 3 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

## VWT 14 APPLIED VITICULTURAL PRACTICES: GRAPEVINE CULTIVARS, CLONES, AND ROOTSTOCKS, GRAPEVINE PROPAGATION, PRUNING, AND TRELLISING AND CANOPY MANAGEMENT

3 UNITS
Introduction and evaluation of vitis vinifera cultivars and clones, and the rootstocks suitable to this area. Introduction to the theory and practices of grapevine propagation, including field budding, T-budding, side-whip grafting, root cutting, and cuttings to change varieties Introduction to trellising options for vinegrape production including principles and practices of canopy management which focus on the
improvement of winegrape quality. Introduction to the theory and practice of pruning grapevines. 2.5 hours lecture, 1 hour laboratory. Transfer: CSU
Degree Applicable, Credit Grading Option: OP

## VWT 20 INTRO TO ENOLOGY <br> 3 UNITS

Introduction to the science of winemaking, including history and geographical distribution; grape varieties and wine types; influence of climate and soil; wine fermentation, handling, storage and bottling methods; wine disorders; winery sanitation; legal compliance. Students must be 21 years of age or older to participate in wine tasting. 3 hours lecture. Transfer: CSU, UC
Degree Applicable, Credit
Grading Option: OP

## VWT 25 SENSORY ANALYSIS OF WINES 3 UNITS

A sensory course designed for individuals to learn organoleptic tasting techniques, characteristics and styles of wine varieties, wine sensory evaluation methods including statistical analysis of trials, philosophy of wine styles, and the common evaluation methods used in sensory testing. Students must be 21 years of age or older, and this class has a materials fee above regular enrollment fee. 3 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP
VWT 31 VINEYARD OPERATIONS I
3 UNITS
Viticulture practices for the fall and winter seasons including harvesting, pruning, varietal selection, erosion control, fertilization, weed control, propagation, and vineyard development. Emphasis on practical applications of viticulture. 2 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## VWT 32 VINEYARD OPERATIONS II <br> 3 UNITS

Viticulture practices for the spring and summer seasons including cultivation, planting and training a new vineyard, pest and disease control, soils, frost control, irrigation practices, quality control measures and vineyard equipment use. Emphasis on practical applications of viticulture. 2 hours lecture, 3 hours laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: OP
VWT 33 SUMMER VITICULTURE OPERATIONS 3 UNITS
Vineyard practices for the summer session. Class operates the Las Positas College Campus Hill vineyard, with an emphasis on the practical applications of viticulture theory including vine training, canopy management, assessment of insect and disease problems specific to the appellation, irrigation applications relating to soil and leaf moisture and crop estimation. 2 hours lecture, 3 hours laboratory Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
VWT 35 VINEYARD PEST AND DISEASE MANAGEMENT 3 UNITS
A study of the identification and the biology of common vineyard pests and diseases. Techniques and strategies for sampling and monitoring and effective control measures. Pest management strategies for insects, weeds and diseases, including bio-control and sustainable agriculture practices in addition to pesticide use, safety and compliance. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## VWT 38 VINEYARD MANAGEMENT

3 UNITS
Responsibilities of vineyard management including: diagnosis and correction of problems, vineyard development, financial projections, and budgeting, labor contracting and supervision, and crop sale contracts. 3 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
VWT 41 WINERY OPERATIONS 13 UNITS
Winery operations for the summer and fall seasons, including grape maturity monitoring; grape harvesting; fermentation, handling and storage
of new wines; maintenance of wines from previous vintages; general cellar practices. Student must be 21 years of age or older to participate in wine tasting. 2 hours lecture, 3 hours laboratory. Transfer: CSU Degree Applicable, Credit

Grading Option: OP
VWT 42 WINERY OPERATIONS II
3 UNITS
Winery operations for the winter and spring seasons, including handling and storage of new wines; maintenance of wines form previous vintages; general cellar practices. Student must be 21 years of age or older to participate in wine tasting. 2 hours lecture, 3 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
VWT 44 WORLD VITICULTURE AND WINES 3 UNITS
A survey of world viticulture wine industries, and wine producing regions and their wines. History of viticulture, worldwide grape growing and wine production and consumption, and world wine regions and wine styles, includes sensory evaluation of representative wines. Student must be 21 years of age or older. There is a materials fee associated with this class. 3 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP
VWT 45 FOOD AND WINE PAIRING
1 UNIT
An introduction to the concepts involved in food and wine pairing through formal tasting, cooking, and lectures. Introduction to the use of sensory abilities to identify those ingredients in both food and wine that complement each other. Participation in palate exercises in which food and wines are paired. Student must be 21 years of age or older. 1 hour lecture, 1 hour laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP
VWT 47 WINE REGIONS AND WINES OF CALIFORNIA 2 UNITS
Introduction to wines produced in California by region, including history, viticultural practices and wine making styles. Sensory evaluation of representative California wines. Laboratory Fee. Students must be 21 years of age or older. 2 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP
VWT 48 WINERY MANAGEMENT
3 UNITS
An introductory level course on winery management, including annual plans and budgets, labor management and supervision, legal compliance, and record keeping. 3 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

## VWT 50 WINE MARKETING AND SALES

3 UNITS
An introductory overview of the wine industry: production, planning, marketing channels, advertising, promotion, packaging, pricing, retail/ wholesale distribution and public relations. 3 hours lecture. Transfer: CSU Degree Applicable, Credit

Grading Option: OP

## WELDING TECHNOLOGY

DEGREE CERTIFICATE

## About the Program

Welding touches every aspect of our modern life from the shoes we wear to the food we eat. The Welder or Welding Technician is concerned with all of the activities related to the manufacturing, production, performance, and maintenance of welded products. Interest is primarily in the manufactured or fabricated product, including process selection, power sources, base and filler materials,
manufacturing methods, hands-on skills training, inspection, quality control, performance evaluation, and equipment service. The broad range of welded products with which welders and welding technicians deal includes structures, such as bridges, buildings, utility equipment, wind turbines, and communication towers; pressure vessels and heat exchangers, such as nuclear systems, boilers, solar thermal systems, oil and natural gas exploration, chemical processing equipment, storage vessels, and transmission and distribution piping; transportation vehicles for water, land, air, and space travel; and production and processing machines of all types.

Completion of the certificate/AS degree requirements prepares students to take certification tests in a workplace environment. Students may begin this program any semester and enter with either Welding Technology 61 or Welding Technology 62 as the starting series, or may choose Welding Technology 70 or Welding Technology 71 as a means to explore the topic on a more superficial approach. This program is designed to teach theoretical concepts in one course and hands-on skills in a companion course. These companion courses must be taken concurrently. While units in the program are transferable to many institutions, students should consult a counselor for specific information.

## Degrees/Certificates

- Degree:
- AS - Welding Technology
- Certificate of Achievement:
- Welding Technology


## Career Opportunities

Students will find many career opportunities open to them, such as Welder, Welding Technician, Fabricator, Certified Welding Inspector, Pipewelder, Ironworker, Boilermaker, Steamfitter, Sheet Metal, as well as Maintenance and Repair occupations.

## Transferability

A majority of the Welding Technology courses transfer to four-year universities as elective units. The course content will prepare students for further study in such majors as General Engineering, Welding Engineering, and Materials Science. Variation in requirements may exist at particular four-year universities; therefore, it is essential that the student refer to the catalog of the prospective transfer institution and consult a counselor.

## AS - Welding Technology

Freshman YearWelding Technology 61A (Beginning Arc, Flux-Core Welding, andBlueprint Reading Theory) 1
Welding Technology 61AL (Beginning Arc and Flux-CoreWelding Skills) 2
Welding Technology 61B (Advanced Stick, Flux-Core Welding, andBlueprint Reading Theory) .1
Welding Technology 61BL (Advanced Stick, Flux-Core and BlueprintReading Skills) 2
Welding Technology 62A (Beginning TIG, MIG Welding and BlueprintReading Theory) .1
Welding Technology 62AL (Beginning TIG, MIG Welding and BlueprintReading Skills). .2
Welding Technology 62B (Advanced TIG, MIG Welding and BlueprintReading Theory) 1
Welding Technology 62BL (Advanced TIG, MIG Welding and BlueprintReading Skills). .2
2
Welding Technology 67A (Welding Skills Laboratory)

$\qquad$Welding Technology 67B (Advanced Welding Skills Laboratory) ............ 2
Design Technology 55 (Blueprint Reading and Sketching).2
Industrial Technology 61 (Manufacturing Processes) .....................Industrial Technology 74 *(Measurements and Calculations) or
Mathematics 71* (Applied Mathematics for Technicians)..

$\qquad$ .....  3 2
General Education Courses§

## Sophomore Year

Welding Technology 66** (Welding Inspection and Testing)................... 3 Welding Technology 69A** (Fabrication and Installing Piping Systems)3 Welding Technology 69B** (Advanced Pipe Welding) $\qquad$ General Education Courses§
Total units required60
§Program-based General Education 3 unit requirement: See a counselor.

* Satisfies Mathematics requirement for graduation
** Offered alternating years


## Certificate of Achievement Welding Technology

Welding Technology 61A (Beginning Arc, Flux-Core Welding, and Blueprint Theory).. $\qquad$
$\qquad$ .1

Welding Technology 61AL (Beginning Arc and Flux-Core Welding Skills).. $\qquad$ .... 2
Welding Technology 61B (Advanced Stick, Flux-Core Welding, and Blueprint Reading Theory) ... $\qquad$
Welding Technology 61BL (Advanced Stick, Flux-Core and Blueprint Reading Skills).
Welding Technology 62A (Beginning TIG, MIG Welding and Blueprint Reading Theory)
Welding Technology 62AL (Beginning TIG, MIG Welding and Blueprint Reading Skills).
Welding Technology 62B (Advanced TIG, MIG Welding and Blueprint Reading Theory)
Welding Technology 62BL (Advanced TIG, MIG Welding and Blueprint Reading Skills)2
Welding Technology 63 (Welding Layout and Fitting) .....  2
Welding Technology 67A (Welding Skills Laboratory) .....  2
Welding Technology 67B (Advanced Welding Skills Laboratory) .. .....  2
Design Technology 55 (Blueprint Reading and Sketching)... .....  2
ndustrial Technology 74 (Measurements and Calculations) orMathematics 71 (Applied Mathematics for Technicians). .3

Total units required23

## WELDING TECHNOLOGY (WLDT)

## WLDT 61A BEGINNING ARC, FLUX-CORE WELDING, AND BLUEPRINT READING THEORY

1 UNIT
Theory and safety of Shielded Metal Arc (SMAW) and Flux-core Arc (FCAW) welding of steel, flame cutting, plasma and carbon arc cutting. American Welding Society nomenclature, electrode and wire selection, job opportunities. Blueprint reading, welding symbols for welders and hazardous material regulation. Corequsite: Welding Technology 61AL or Welding Technology 61BL. 1 hour lecture. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## WLDT 61AL BEGINNING ARC AND FLUX-CORE

 WELDING SKILLS2 UNITS
Skills of Shielded Metal Arc (SMAW) and Flux-Core Arc (FCAW) welding in the flat, horizontal, and vertical positions to code specifications. Oxy-fuel flame, plasma, and carbon arc cutting. Corequisite: Welding Technology 61A or Welding Technology 61B. 6 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## WLDT 61B ADVANCED STICK AND FLUX-CORE WELDING SKILLS <br> 1 UNIT

Theory and safety of Stick (SMAW) and Flux-core Arc (FCAW) welding of steel, flame cutting, plasma and carbon arc cutting. American Welding Society nomenclature, electrode and wire selection, job opportunities. Blueprint reading, welding symbols for welders and hazardous material regulations. Prerequisite: Welding Technology 61A (completed with a grade of " $C$ " or higher). Corequisite: Welding Technology 61AL or Welding Technology 61BL. 1 hour lecture. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## WLDT 61BL ADVANCED STICK AND FLUX-CORE

 WELDING SKILLS2 UNITS
Advanced skills in Stick (SMAW) and Flux-core (FCAW) welding of steel in the horizontal, vertical and overhead positions to A.W.S. codes. Safety and proper use of SMAW and FCAW equipment, oxy-fuel welding and cutting, plasma cutting. Blueprint usage in welding shop environment. Pipe and tubing fit-up and welding. Prerequisite: Welding Technology 61AL. Corequisite: Welding Technology 61A or Welding Technology 61B 6 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## WLDT 62A BEGINNING TIG, MIG WELDING, AND BLUEPRINT READING THEORY

 1 UNITTheory of fuel and inert gas welding of steel and aluminum alloys, oxyacetylene brazing, flame cutting, and plasma cutting. TIG or Gas Tungsten Arc (GTAW) and MIG or Gas Metal Arc (GMAW) welding equipment and supplies. Nomenclature and metallurgy of steel and aluminum alloys. Introduction to blueprint reading. Hazardous material regulations and material safety data sheets. Corequisite: Welding Technology 62AL or Welding Technology 62BL. 1 hour lecture. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## WLDT 62AL BEGINNING TIG, MIG WELDING AND BLUEPRINT READING SKILLS 2 UNITS

Skills of TIG (GTAW) and MIG (GMAW) welding of ferrous and nonferrous alloys in the flat, horizontal, and vertical positions to A.W.S. codes. Safety and proper use of TIG and MIG equipment, oxy-fuel welding and cutting, plasma cutting. Blueprint usage in welding shop environment. Corequisite: Welding Technology 62A or Welding Technology 62B. 6 hours laboratory. Transfer: CSU (May be taken 4 times) Degree Applicable, Credit

Grading Option: OP

## WLDT 62B ADVANCED TIG, MIG WELDING AND BLUEPRINT READING THEORY

Theory and safety of TIG (GTAW) and MIG (GMAW) welding of steel, flame cutting, plasma and carbon arc cutting. American Welding Society nomenclature, electrode and wire selection, job opportunities. Blueprint reading, welding symbols for welders and hazardous material regulations. Corequisite: Welding Technology 62AL or Welding Technology 62BL. 1 hour lecture. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

WLDT 62BL ADVANCED TIG AND MIG WELDING SKILLS 2 UNITS Advanced skills in TIG (GTAW) and MIG (GMAW) welding of ferrous and non-ferrous alloys in the horizontal, vertical and overhead positions to A.W. S. codes. Safety and proper use of TIG and MIG equipment, oxy-fuel welding and cutting, plasma cutting. Blueprint usage in welding shop environment. Pipe and tubing fit-up and welding. Prerequisite: Welding Technology 62AL (completed with a grade of "C" or higher). Corequisite: Welding Technology 62A or Welding Technology 62B. 6 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

WLDT 63 WELDING LAYOUT AND FITTING
2 UNITS
Interpretation of welding blueprints by making welding layouts and fitups. Current methods, practices, and recommended procedures. Use of jigs, fixtures, holding devices, and welding sequences. Methods of straightening and restoring dimensions to finished product. Laboratory includes Arc, MIG, TIG, and Flux-core welding, plasma and fuel cutting. Prerequisite: Welding Technology 62BL (completed with a grade of "C" or higher). 1 hour lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
WLDT 66 WELDING INSPECTION AND TESTING
2 UNITS
Theory and skills in performing inspections and tests using destructive and nondestructive methods. Tensile and hardness testing; dye penetrant, magnetic particle, radiographic, ultrasonic, and metallographic inspection. Prerequisite: Welding Technology 62BL (completed with a grade of " C " or higher). 1 hour lecture, 3 hours laboratory. Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## WLDT 67A WELDING SKILLS LABORATORY

2 UNITS
Development and improvement of skills in Arc (SMAW), Flux-core (FCAW), MIG (GMAW), and TIG (GTAW) welding. Prerequisite: Welding Technology 61AL (completed with a grade of "C" or higher). 6 hours laboratory. (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
WLDT 67B ADVANCED WELDING SKILLS LABORATORY 2 UNITS
Advanced development and improvement of skills in Arc (SMAW), Flux-core (FCAW), MIG (GMAW), and TIG (GTAW) welding. Prerequisite: Welding Technology 67A (completed with a grade of "C" or higher). 6 hours laboratory. (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP
WLDT 68 CERTIFICATION PREPARATION
2 UNITS
Welding processes preparation for certification exams. Theory of American Welding Society D1.1, American Society of Mechanical Engineers Section IX, American Petroleum Institute 1.104. 6 hours laboratory. (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## WLDT 69A FABRICATION AND INSTALLING PIPING SYSTEMS

3 UNITS
Theory and practical application of: pipe joint preparation and design, API (American Petroleum Institute) and AWS (American Welding Society) welding codes specification for pipe and pipe fittings, analysis of joint configuration, plasma and flame cutting of pipes, wire and electrodes selections, beginning of pipe welding blue print and welding symbols, SMAW, GMAW, and GTAW of pipe joints, non-destructive and destructive test and qualitative concepts of evaluation. Prerequisite: Welding Technology 61BL or Welding Technology 62BL (completed with a grade of " $C$ " or higher). 1 hour lecture, 6 hours laboratory. (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

## WLDT 69B ADVANCED PIPE WELDING

Theory and practical application of pipe joint preparation and design; API (American Petroleum Institute) and AWS (American Welding Society) welding codes specifications for pipe and pipe fittings; geometric curve design for branched join of piping systems; wire and electrodes selections; advanced welding blue print and pipe welding symbols, SMAW, GMAW, and GTAW of pipe joints; metallurgical transformation of WLDT Heat Affected Area (HAA); welding discontinuities and defects; destructive and non-destructive testing; and methods of inspection and testing. Prerequisite: Welding Technology 69A (completed with a grade of "C" or higher. 1 hour lecture, 6 hours laboratory. (May be taken 4 times)
Degree Applicable, Credit
Grading Option: OP

WLDT 70 INTRODUCTION TO WELDING
2 UNITS
Arc, TIG, MIG, Flux-core, gas and braze welding, plasma and fuel gas welding and cutting. Theory and care of welder's equipment with emphasis on safe practices. 1 hour lecture, 3 hours laboratory.
Transfer: CSU (May be taken 4 times)
Degree Applicable, Credit Grading Option: OP
WLDT 71 WELDING FOR THE ARTS
Provides basic welding, shop skills and instruction that artistically inclined individuals should know in order to be effective in the process of creating metal art and sculpture. Provides instruction on types of metals (aluminum, iron, steel, cast iron, bronze, stainless steel, etc.), mechanical fastenings, cutting and permanent joining together of metals and alloys through welding processes such as SMAW, GMAW, GTAW, FCAW, oxyacetylene and braze welding, plasma and fuel gas cutting. Instruction includes general shop safety, equipment use, finishing, welding electricity fundamentals, welding consumable identification, and hazardous materials regulation. 1 hour lecture, 6 hours laboratory. AA/AS GE. Transfer: CSU; CSU GE: C1 (May be taken 4 times) Degree Applicable, Credit Grading Option: OP

WLDT 75 CONSTRUCTION SAFETY 1 UNIT
This course provides the safety knowledge required to operate safely in a construction workplace environment. This course will emphasize hazard identification, avoidance and control as means to proactively create a safe workplace environment. OSHA safety standards will be emphasized throughout to maintain consistency with workplace environment. This course meets/exceeds the 10 hour OSHA construction safety training requirements. 1 hour lecture. Transfer: CSU (May be taken 2 times)
Degree Applicable, Credit
Grading Option: OP
WLDT 79 MANUFACTURING PROCESSES 2 UNITS
This course examines the processes and equipment used in modern manufacturing. This course provides an excellent introduction to today's manufacturing processes, as well as an overview of the processes and equipment used in modern manufacturing. The course concentrates on the five major types of industrial materials; metals, plastics, ceramics, woods, and composites. It provides thorough coverage of the forming, separating, fabricating, conditioning, and finishing processes related to each material. The course also includes the materials and manufacturing processes used in packaging finished goods. The proper and safe use of hand tools, basic shop tools, manufacturing and welding equipment will be covered. Understanding the relationship between manufacturing processes, materials properties, materials processing and design. 1.5 hours lecture, 1.5 hours laboratory. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## WLDT 80 THE WELDING BUSINESS

2 UNITS
This course explores the combination of materials, labor and machines. This course examines the unique aspects associated with the operation of a successful welding business. This course provides a basic understanding of the flow of work through a welding operation from the initial customer contact through the completed component arriving at the customers receiving facility. A discussion of who the customer base is, how does the company locate work that fits their capability, the request for quotation, the processes of bidding on work, estimating, quotations, contract documents, codes, specifications, customer requirements, manufacturing travelers, quality control, manufacturing methods, labor, raw material sources, subcontractors, finishing, transportation, materials handling, packaging, and the process for getting paid for doing the work. Basic definitions of business concepts such as accounting, labor laws, compliance, taxes, cash flow, payroll accounts receivable, accounts payable, balance sheet, as well as profit and loss as they relate to a welding business. 2 hours lecture. Transfer: CSU
Degree Applicable, Credit
Grading Option: OP

## WOMEN'S STUDIES

## WMST 1 INTRODUCTION TO WOMEN'S STUDIES 3 UNITS

Examines the cultural, historical, social, political and economic experiences of women in the United States. Introduces feminist perspectives on a wide range of issues affecting women incorporating race, class, ethnicity, sexual orientation and the life cycle. Analysis of African American women, Asian American women, Chicanas, European American women and Middle Eastern American women. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: D4, D7; IGETC: 4D, 4G Degree Applicable, Credit

Grading Option: OP

## WMST 2 GLOBAL PERSPECTIVE OF WOMEN 3 UNITS

Examines the cultural, historical, political and economic experiences of women globally. Introduces feminist perspectives on a wide range of issues affecting women including globalization, war, education, work, family and religion in Asia, Africa, the Middle East and Latin America. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: D4, D7; IGETC: 4D, 4G Degree Applicable, Credit

Grading Option: OP

## WORK EXPERIENCE

## Work Experience Requirements

To participate in Work Experience Education programs, students must:

- Pursue a planned program of Work Experience that includes new or expanded responsibilities or learning opportunities beyond those experienced during periods of previous employment;
- Have paid or volunteer employment in any field;
- Have the approval of the instructor/coordinator.

Additionally, students must meet the requirements of either of the following plans.

## I. Parallel Plan

A. Be enrolled in a minimum of 7 units including Work Experience;
B. Be currently enrolled in a course in their major or planned academic program which is related to the Work Experience.

Under the Parallel Plan, one unit of credit is granted for 5 hours of work each week to a maximum of 3 units for 15 or more hours each week. Students must also attend a one hour weekly seminar class.

## II. Alternate Plan

A. May not be enrolled in more than one additional course;
B. May not transfer from the alternative plan to the parallel plan, or vice versa, without having completed 7 units in between plans.

Under the Alternate Plan, students may earn four to eight units of credit for working 20 to 40 hours each week. Regularly scheduled meetings with the instructor are required throughout the semester.

For either plan a cumulative total of 16 units may be earned (including the seminar units).

## See also: Business <br> Computing <br> Early Childhood Development <br> Fire Service Technology <br> Horticulture <br> Viticulture and Winery Technology

## WORK EXPERIENCE (WRKX)

WRKX 95 OCCUPATIONAL WORK EXPERIENCE 1-3 UNITS
Earn college credit while working. College supervised on-the-job training for work in a business related occupation. Through the cooperation of the work supervisor, contract to accomplish new learning objectives or broaden experiences in work field. Corequisite: Concurrent enrollment in Work Experience 96. 5-15 hours of paid employment per week or 4-12 hours of volunteer work each week. Maximum units for all work experience course, combined (95, 96 and 98) total of 16 units. Refer to program requirements on this page. Transfer: CSU (May be taken four times) Degree Applicable, Credit

Grading Option: OP

## WRKX 96 WORK EXPERIENCE SEMINAR

1 UNIT
Earn college credit while working. Focal point for the coordination of curriculum with college supervised part-time or full-time employment in the major field. Case studies, job related problems, student cases and presentations, and material related to employment, organizations, and management discussed; emphasis on building strong working relationships with supervisors, subordinates, and co-workers Corequisite: Work Experience 95. 1 hour lecture Maximum units for all work experience course, combined (95, 96 and 98) total of 16 units. Refer to program requirements on this page. Transfer: CSU (May be taken four times)
Degree Applicable, Credit Grading Option: OP

## WRKX 98 OCCUPATIONAL WORK EXPERIENCE:

## ALTERNATE PLAN

4-8 UNITS
College supervised on-the-job training enabling students to attend college full time one semester and work full time the following semester. The on-the-job experience must be related to the students educational and occupational goals or college major. The training may be paid or volunteer. 20-40 hours of work experience each week are required. Maximum units for all work experience course, combined (95, 96 and 98) total of 16 units. Refer to program requirements on this page. Transfer: CSU (May be taken four times)
Degree Applicable, Credit
Grading Option: GR

## ZOOLOGY

Zoology 1 is one of many courses offered by the Biology Department. It fulfills various degree, certificate, transfer, and/or career requirements. For more details about how Zoology 1 fits into different pathways, please see "Biology" in the catalog, page 60.

## ZOOLOGY (ZOOL)

ZOOL 1 GENERAL ZOOLOGY 5 UNITS
Major groups of organisms from Protista and Animalia kingdoms with emphasis on the evolution of form and function and their relationship to behavior and ecology. Laboratory dissection and observation of anatomy with correlative studies in animal behavior in the laboratory and field. Designed for majors in biology, zoology, wildlife management and related fields. Prerequisite: Mathematics 55 or 55B or 55 Y (may be taken concurrently) or an appropriate skill level demonstrated through the mathematics assessment process. Strongly recommended: Biology 31. 3 hours lecture, 6 hours laboratory. AA/AS GE. Transfer, CSU, UC; CSU GE: B2, B3; IGETC: Area 5B \& Lab
Degree Applicable, Credit
Grading Option: GR

| Lawrence F. Aguiar | BS, California State University, Hayward; |
| :--- | :--- |
| (1977) | MA, Stanford University; Physical <br> Education |
| Angela L. Amaya | BA, College of St. Benedict; MLIS, San Jose | (2008) State University; Librarian


| Kevin M. Ankoviak | BS, University of Michigan; MS, UCLA; <br> (2000) |
| :--- | :--- |
| Michael A. Ansell <br> (2002) | BS, California State University, Chico; MS, Physics <br> University of Oregon; PhD, University of <br> Oregon; Chemistry |
| Robert H. August, Jr. | BS. Armstrong Atlantic State University; <br> MS, Western Kentucky University; <br> (2001) |
| Mathematics |  |
| Alexander J. Bachelor  <br> (2009) Certification: Surgical Technology; <br> Certification: Otolaryngology; Surgical <br> Technical |  |

Carolyn Slutz Baranouskas AA. Chabot College; BA, DePauw (1990) University; Design/Drafting Technology

TeriAnn Bengiveno
(2001)
R. Toby Bielawski
(1999)

Howard L. Blumenfeld
(2008)

Jeremiah H. Bodnar
(2007)

Janet A. Brehe Johnson (1986)

Jonathan D. Brickman (2006)

Mary E. Campbell (1990)

Jill E. Carbone
(2006)

## Rajeev Chopra

(2008)

Elena C. Cole

Anthony J. Costello (2005)

## Jason B. Craighead

 (2009)
## Moh Daoud

 (2002)
## Gregory T. Daubenmire (2000)

Robert L. D’Elena (2007)

James L. Dobson
(2001)

## Richard J. Dry

 (1999)
## Catherine M. Eagan

 (2003)
## David R. Everett

(2005)

Lisa R. Everett
(2000)

Debbie J. Fields

$$
(1990)
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## Adeliza E. Flores (2006)

Joel M. Gagnon (2011)

Justin C. Garoupa

## (2006)

Heike Gecox
(2011)

James J. Gioia

## (2001)

## John S. Gonder

(2002)

Michelle C. Gonzales (2005)

AA, Santa Rosa Junior College; BS,
UC Santa Barbara; MSS, United States
Sports Academy; Physical Education/ Swimming Coach

AS, College of San Mateo; BS, Ecole Nationale D'Electronique, Paris; Computer Information Systems

AS, College of San Mateo; MS,
San Jose State University; BA, San State University; MS, San Jose State University; Mathematics

BS, State University of New York, Albany; MS, State University of New York, Albany; Business

AA. College of DuPage, Illinois; BS,
Northern Arizona University; MA, California State University, Chico; Speech

BA, University of California, Berkeley; MA, San Francisco State University; English

BA, University of California, Berkeley; PhD, Boston College; English

VWT Coordinator; Viticulture and Winery Technology

BS. University of California, San Diego; MS, San Francisco State University; Physical Education/Health

AA, Penn State University; BS, Virginia Commonwealth University; MBA, Golden Gate University; Computer Information Systems

BS, University of California, Davis; MS, San Francisco State University; Chemistry

BA, University of California, Santa Barbara; MA, St. Mary's College of California: Counseling

BA, University of California, Davis; MFA, University of California, Davis; English

AA, Las Positas College; BA, California State University, Hayward; MS, California State University, Hayward: Counseling

AA, Miami Dade College; BS, Unvierstiy of California, Bekeley; MS, California State University, Hayward; PhD, California School of Professional Psychology; DSPS
Counselor/Coordinator
Cisco Certification; Computer Networking Technology

BA, Mills College; MFA, Mills College; English

| Richard H. Grow (2006) | BS, California State University, Hayward; MS, California State University, San Francisco; PhD, University of California, Riverside; Chemistry |
| :---: | :---: |
| Brian J. Hagopian (2005) | AS, Fresno City College; Automotive Technology |
| Ruth L. Hanna (1991) | AA, Hartnell Community College; BS, University of California, Davis; MS, University of California, Davis; Geology |
| Eric W. Harpell (1988) | BA, University of California, San Diego; MS, University of California, Los Angeles; Physics |
| LaVaughn M. Hart (2000) | AA, Las Positas College; Business Information Technology/Computing Studies |
| Lauren W. Hasten (2004) | BA, Brooklyn College; MA, Columbia University; Anthropology |
| Timothy D. Heisler (1995) | AA, Chabot College, Hayward; BA, California State University, Hayward; MA, California State University, Hayward; Speech |
| Teresa D. Henson (2000) | BA, University of Colorado; MS, University of Colorado; Mathematics |
| Nan Ho (1995) | BS, Stanford University; MS, Stanford University; Biology |
| Elizabeth M. Hopkins (2008) | BA, Chapman University; MPH, University of California, Los Angeles; Health |
| Deanna A. Horvath (2009) | BA, CSU East Bay; Photography |
| Frances M. Hui (2000) | BA, San Diego State University; MLS, University of California, Los Angeles; Librarian |
| Tina E. Inzerilla (2007) | AA, Chabot College; BS, California State University, Hayward; MLIS, San Jose State University; Librarian |
| Ronald J. Johansen (2005) | AA, Chabot College; Fire Service Technology |
| Terry K. Johnson (1999) | Automotive Certification, College of Alameda; Automotive Technician Program, Chabot/Las Positas College; ASE Master Technician; Automotive Technology |
| Ernest D. Jones (1991) | AA, Contra Costa Community College; BA, San Francisco State University; MS, San Francisco State University; Psychology |
| Cynthia M. Keune (2004) | BA, Cornell College; MS Iowa State University; MBA, San Diego State University; Mathematics |
| Candace L. Klaschus (2005) | AA, Columbia Junior College; BA, San Francisco State University; MA, San Francisco State University; PhD, University of New Mexico; Humanities |


| Melissa A. Korber (1999) | BA, Montana State University; JD, University of Pacific McGeorge School of Law; MA, San Francisco State University; English (Creative Writing); English/Mass Communications |
| :---: | :---: |
| Craig A. Kutil (2006) | BA, Humboldt State University (Liberal Studies); BA, Humboldt State University (Mathematics); MS, Humboldt State University; Mathematics |
| Christina H. Lee (2006) | BA, University of California, Berkeley; MS, San Francisco State University; Counselor |
| Keith B. Level (2007) | BS, Stanford University; MS, Stanford University; Engineering |
| Marina M. Lira (2011) | AS, Santa Rosa Junior College; BA, Sonoma State University; MSW, University of California, Berkeley: Counseling |
| Ruchira Majumdar (2008) | BS, University of Calcutta; MS, University of Calcutta; PhD, Iowa State University; Mathematics |
| Marilyn M. Marquis (1991) | AA, Peirce College; BA, California State University, Northridge; MA, California State University, Dominguez Hills; English/English as a Second Language |
| Jane C. McCoy (1994) | BA, Loyola University, Chicago; MA, California State University, Hayward; History |
| Stuart J. McElderry (2000) | BA, University of California, Berkeley; MA, San Francisco State University; PhD, University of Oregon; History |
| Ashley D. McHale (2008) | BS, Elon University; MS, Texas Tech University; Mathematics |
| Scott A. Miner (2006) | AA, Chabot College-Valley Campus; BS, California Polytechnic State University; Welding Technology |
| Jason M. Morris (2001) | BA, University of Texas; MA, University of New Mexico; Mathematics |
| Barbara J. Morrissey (1991) | BS, University of Hawaii; MS, University of California, Davis; MS, California State University, Hayward; Counselor |
| Martin J. Nash (2009) | BA, Kansas State University; MFA, California College of the Arts; English |
| Steven J. Navarro (1995) | BA, Chapman University; MA, California State University, Long Beach; Physical Education |
| Maureen P. O'Herin (2003) | BA, St. Mary's College; MA, San Francisco State University; English |
| Thomas M. Orf (2005) | BA, University of Northern Colorado; MS, University of Northern Colorado; PhD, University of Kentucky; Geography |


| Brian H. Owyoung (1997) | BA. California State University, Hayward; MA, University of San Francisco; ThM, Dallas Theological Seminary; PsyD, California School of Professional Psychology; Counselor, Disabled Students Programs and Services |
| :---: | :---: |
| William Paskewitz, Jr. (1988) | BFA. Cooper Union; MFA, Queens College; Art |
| Cecelia A. Browne Rosefield (2006) | AA, Los Medanos College; BA, California State University, Hayward; MA, Washington State University; Music |
| Zina L. Rosen-Simon (2001) | BS, Michigan State University; MAT, Oakland University; AD, ED, San Jose State University; Early Childhood Development |
| Cynthia W. Ross (2001) | BS, Baylor University; MS, California State University, Hayward; Psychology |
| Robin E. Roy (2008) | BA, Connecticut College; MS, Old Dominion University; PhD, University of Vermont; Psychology |
| John D. Ruys (2006) | BS, University of California, Davis; MS, University of California, Davis; PhD, University of California, Davis; Psychology |
| Michael R. Sato (2002) | BA, University of California, Santa Cruz; MA, California State University, Sacramento; English |
| Colin G. Schatz (2008) | BA, Swarthmore College; MS, Stanford University; Ph.D, Stanford University: Computer Science |
| Paula M. Schoenecker (2008) | BA, California State University, Hayward; MS, California State University, Hayward; Learning Disabilities Specialist, Instructor, DSPS |
| Michael J. Schwarz (2006) | AA, Santa Rosa Junior College; AB, University of California, Davis; MA, University of San Diego; Counselor |
| Geoffrey C. Smyth (1990) | BA, University of the Pacific, Stockton; MA, University of the Pacific, Stockton; Physical Education |
| Karin S. Spirn (2005) | BA, University of California, Berkeley; MA, University of Michigan; PhD, University of Michigan; English |
| Catherine A. Suárez (2006) | BA, University of the Pacific; ME, University of the Pacific; Foreign Languages |
| Mark S. Tarte (2002) | BA, St. Mary's College; Administration of Justice |
| Nadiyah Taylor (2009) | BA, Macalester College; MA, Pacific Oaks College; Early Childhood Development |


| Randolph J. Taylor (1990) | BA, California State University, Sacramento; MS, California Polytechnic State University, San Luis Obispo; MS, California Polytechnic University; MS, University of California, Berkeley; Computer Science, Mathematics |
| :---: | :---: |
| Sarah K. Thompson (1996) | BA, Hamilton College; MA, Rutgers University; Sociology |
| Kimberly A. Tomlinson (2001) | BA, University of Minnesota; MA Luther Theological Seminary, St. Paul; CalWORKS, Religious Studies |
| Paul S. Torres (2001) | AA, DeAnza College; BA, San Jose State University; MA, University of California, Riverside; Political Science |
| Angella VenJohn (1999) | BS, University of Iowa; MA, California State University, Sacramento; Student Interventions Counselor |
| Gilberto N. Victoria (1995) | AA, Chabot College; BA, University of California, Irvine; MS, California State University, Hayward; Counselor |
| Cheryl L. Warren (2004) | BA, Georgia Southern University; MSLS, University of North Carolina; Librarian |
| Brenda A. Weak (2006) | BS, Kansas State University; MS, Kansas State University; Mathematics |
| Lisa T. Weaver (2004) | BS, Minor State University, ND; MBA, Concordia University; PhD, Concordia University; Business/Economic Development |
| Grazyna "Gina" Webster (2005) | BS, Agricultural University of Warsaw; MS, Agricultural University of Warsaw; MS, University of California, Berkeley; PhD, University of California, Berkeley; Economics |
| Kristine W. Woods (2003) | BS, Willamette University; MA, California State University, Hayward; Mathematics |
| Barbara C. Zingg (1997) | BS AKAD, Zurich; DVM, University of Berne; PhD, University of California, Davis; Biology |



## Janice M. Albert

Instructor

## Patricia J. Richmond

1979-1997
Counselor Assistant I
Joan H. Long
1989-1997
Instructor

## Lola Bermudez

Acting Dean, Academics Services

## Phillip "Babe" M. Castillo

Assistant Custodial Supervisor

## Robert P. Dickinson, Jr.

Instructor

## Joan D. Newsom

1981-1998
Cashier/Buyer Bookstore

## Barry J. Deadder

1982-1998
Security Supervisor

## Ruth S. Feldman

1969-1999
Instructor

## David A. Wright

1965-1999
Instructor

## Karen O. Albertson

1981-1999
Instructional Computer Laboratory Specialist

## Linda L. Lucas

1969-2000
Dean of Academic Services

## LaVere H. Adams

1980-2000
Instructor
Esther S. Goldberg
1970-2001
Instructor

## Victor G. Willits

1986-2001
Instructor
Janice E. Winegarner
1990-2001
Student/Staff Liaison, Office Specialist/Secretary II

## Arthur S. Deleray

1970-2002
Instructor
Robert J. Wood
1970-2002
Instructor

## Dee D. Roshong

1965-2003
Dean of Student Services
Aileen T. Furuyama
1992-2003
Librarian

## Juliette A. Bryson

1971-2004
Instructor
Anne M. Powell
1974-2004
Instructor

## Carol E. Clough

1977-2004
Instructor
Carol L. Abert
1979-2004
Instructional Assistant II

| Alene H. Hamilton | 1980-2004 | Instructional Admissions Specialist |  |
| :---: | :---: | :---: | :---: |
| Counselor/Instructor |  | Judith K. Hanson | 1988-2007 |
| Jane E. Benham | 1989-2004 | Academic Services Specialist II |  |
| Instructional Assistant II |  | Keith E. Jolly | 1984-2008 |
| Walter T. Mara | 1984-2004 | Instructor |  |
| Instructor |  | Robert F. Breuer | 1990-2008 |
| Richard I. Solomon | 1991-2004 | Instructor |  |
| Instructor |  | Patrick L. Pohl | 1971-2009 |
|  |  | Faculty |  |
| Vice President of Academic Services |  |  |  |
|  |  | Linda L. Peifer <br> Administrative Assistant II | 1975-2009 |
| James H. Adams | 1979-2005 |  | 1975-2009 |
| Science Education Technician |  | Sophie C. Rheinheimer Faculty | 1975-2009 |
| Instructor | 1980-2005 | Steven E. Bundy | 1976-2009 |
|  |  | Counselor/Instructor |  |
| Connie A. Bish | 1982-2005 | Karen B. Pihl | 1976-2009 |
| Instructional Assistant II |  | Faculty |  |
| James L. Landre | 1982-2005 | David B. Vigil | 1980-2009 |
| Instructor |  | Laboratory Technician IV |  |
| Gary F. Svihula | 1982-2005 | James B. Heiner | 1981-2009 |
| Instructor |  | Instructor |  |
| Margaret E. Riley Instructor | 1985-2005 | Mary Straight | 1984-2009 |
|  |  | Assessment Specialist |  |
|  |  | Lindell R. Bruce | 1985-2009 |
| William R. Dunn Instructor | 1987-2005 | Instructor |  |
|  |  |  |  |
|  |  | Theresa M. Costa | 1990-2009 |
| Sharon A. Cadwalader | 1986-2005 | Student Counseling Assistant I |  |
| Executive Assistant to the President |  |  |  |
|  |  | Abigail McCann | 1990-2009 |
| Alice Y. Kwan | 1988-2005 | Instructor |  |
| Admissions and Records Assistant II |  |  |  |
|  |  | Ken Ross | 1990-2009 |
| William McCarthy | 1990-2005 | Faculty |  |
| Security Officer |  |  |  |
| Denise Van Horn-Landre | 1995-2005 | Donna J. Impey | 1991-2009 |
| Articulation Officer |  | Instructional Assistant II |  |
|  |  | Sharon R. Keick | 1992-2009 |
| Maria Elena Pellinen | 1975-2006 | Custodial Supervisor |  |
| Instructor |  | Alice M. Moyer | 1992-2009 |
| Arthur S. Tenbrink | 1980-2006 | Instructional Assistant II |  |
| Counselor/Instructor |  | Martha L. Peterson | 1996-2009 |
|  |  | Accompanist |  |
| Lucy A. Sponsler | 1991-2006 |  |  |
| Instructor |  | Gale "Jackie" Fitzgerald Faculty | 1997-2009 |
| Eric Golanty | 1993-2006 | Margaret Egan | 1999-2009 |
| Instructor |  | Counselor Assistant I |  |
| Peggy C. Carter <br> Librarian | 1989-2007 | Richard D. Butler | 1999-2010 |
|  |  | Director of Safety \& Security |  |
| James A.R. Forcier | 1976-2007 | Martha K. Konrad | 1991-2011 |
| Instructor |  | Executive Assistant |  |
| Lettie J. Camp | 1979-2007 | Robert S. Kratochvil | 2002-2012 |
| Career/Transfer/Employment Coordinator |  | Vice President of Administrative Services |  |
| Barbara W. Hardy | 1988-2007 | Carolyn I. Smutny | 2002-2012 |
| Librarian |  | Staff Assistant |  |
| Sharron L. Dupree | 1993-2007 |  |  |

## Chabot-Las Positas <br> Community College District

| Alvin Bonus Ablaza | Custodian I |
| :---: | :---: |
| Miguel Angel Aguirre | Electrician |
| Kennedy Pedr Agustin | Manager, Network Systems \& Svcs |
| Allan Keven Ambrecht | Maintenance Supervisor |
| Rodolfo V. Apostol | Custodian I |
| Benito N. Aquino | Lead Custodian |
| Daniel E. Bolger | Grounds Supervisor |
| Pamela Jean Bracy | Custodian I |
| Robert C. Brusstar | Custodian II |
| Lynn A. Bustamante | Custodian I |
| Virgilio D. Calixto | HVAC Maintenance Engineer |
| Richard Eugene Davenport | Custodian I |
| Ed Antonio Forcadilla Erestain | Custodian I |
| Stacey L. Followill | Sr Programmer Analyst II |
| Catherine A. Gould | Sr Programmer Analyst II |
| Michael J. Halleck | Custodian II |
| Theresa Ann Hirstein | Computer Operations Supervisor |
| Robert Martin Holleman | HVAC Maintenance Engineer |
| John Douglas Horner | Project Plnr-Mgr, Facilities |
| Liem T. Huynh | Programmer Analyst II |
| Kyle T. Judson | Sr Programmer Analyst I |
| Marietta Laurella | Custodian I |
| Janet Lea Malski | Admin Systems Analyst II |
| Edna J. Mills | Custodian I |
| Joseph Pimental | Custodian I |
| Amanda Michelle Pisani | Admin Systems Analyst I |
| Pongpunt Pungchai | Programmer Analyst II |
| Walter Addison Rexroad | Grounds Worker I |
| Rodney L. Ribali | Grounds Worker II |
| Sonia A. Rios | Custodian II |
| Elizabeth Salas | Custodian I |
| Raymond G. Salas | Lead Warehouse Worker |
| Steven Paul Smalley | Maintenance Worker |
| Mark C. Smythe | Network Systems Specialist II |
| Revoyda Starling | Network Systems Specialist |
| Eric V. Stricklen | Senior Programmer Analyst III |
| Katherine L. Tollefsen | User Support Specialist |
| Danita A. Troche | Senior Programmer Analyst II |
| Rachel Amy Ugale | Admin Systems Analyst II |
| Carl Ken Yamasaki | Lead Grounds Worker |

## Las Positas College

| Elizabeth B. Abril | Counselor Assistant II |
| :---: | :---: |
| Jennifer R. Adams | Executive Assistant to the College President |
| Cynthia A. Ahre | Instructional Assistant III |
| Frankie L. Alexander | Security Communications Dispatch |
| John M. Armstrong | Student Records Evaluator/ Outreach Specialist |
| Saundra L. Ashburn | Telephone Operator/Receptionist |
| Sarah V. Aubert | Curriculum \& Scheduling Specialist II |
| Cynthia J. Balero | International Student Program Coordinator |
| Valerie Ball | Administrative Assistant II |
| Lesley A. Barron | Learning Resources Asst III |
| Haywood Beaird | Computer/Network Support Specialist II |
| Donna G. Best | Student Records Evaluator |
| Cindy Black | Laboratory Technician - Microbiology |
| Jeff W. Burns | Security Officer |
| Janice A. Cantua | Admissions and Records Assistant III |
| Peter R. Cardin | Library Technician I |
| Neil P. Carey | Instructional Assistant II |
| Ethan L. Castor | Computer Network Support Specialist II |
| Chyi Chang | Fiscal and Administrative Services Technician |
| Margaret Costello-Chevis | Early Childhood Specialist |
| Sharon A. Davidson | College Administrative Assistant |
| Sean P. Day | International Admissions Specialist |
| Joseph A. Dazhan | Security Officer |
| Andres De La Cruz | Computer Network support Specialist |
| Frances M. DeNisco | Community Education Program Coordinator |
| Thomas M. Dodge | Laboratory Technician II-Science |
| Theresa A. DuBord | Security Officer |
| Dianne M. Duffy | Instructional Assistant II Mathematics |
| Deborah G. Earney | Admissions and Records Assistant II |
| William S. Eddy | Physical Education/Athletic Assistant |
| Carol J. Edson | Laboratory Technician II |
| Virginia Edwards | Learning Resources Assistant III |
| Jennifer L. Farber | Instructional Assistant II |
| Michael T. Furuyama | Instructional Systems Technician |
| Sharon V. Gach | Administrative Assistant II President's Office |
| Gerry L. Gire | Science Education Technician |
| Leslie D. Gravino | Work Based Learning Program Coordinator |
| Scheanelle J. Green | Career/Transfer/Employment Coordinator |


| Stephen J. Gunderson | Senior Instructional Network Systems Specialist |
| :---: | :---: |
| Ana A. Gutierrez | Early Childhood Specialist |
| Mary E. Hargiss | Administrative Assistant II |
| Kathy J. Harris | Instructional Assistant II |
| Donna S. Hawkinson | Student Counseling Assistant II |
| Constance F. Hildebrand | Counselor Assistant I |
| Jared N. Howard | Assessment Specialist |
| Gregory S. Johns | Instructional Computer Laboratory Specialist |
| Pamela J. Johnson | Physical Ed/Athletics Asst |
| Ann A. Jones | Student Services Specialist II |
| Larysa V. Karpylovych | Instructional Assistant II |
| Diana N. Kleinschmidt | Library Services Specialist |
| Natasha R. Lang | College Administrative Services Officer |
| Jeffrey T. Lawes | Admissions and Records Assistant II |
| Jadin Lee-Forbes | Telephone Operator/Receptionist |
| Sherman Lindsey | Instructional Systems Specialist |
| Lilia Camino Lopez | Staff Assistant |
| Carmen L. McCauley | Administrative Assistant II |
| Sheri Moore | Staff Assistant |
| Diana Navarro-Kleinschmidt | Library Services Specialist |
| Jeffrey Nelson | Security Officer |
| Ernesto Nery | Student Services Specialist II |
| Carmen M. Ortiz | Early Childhood Specialist |
| Renee I. Pegues | Exec Asst, Vice Pres Administrative Services |
| Maria Pena-Bradford | Admissions \& Records Assistant I |
| Sean L. Prather | Security Officer |
| Teresita C. Rabon | Telephone Operator/Receptionist |
| Connie L. Reding | Staff Assistant |
| Dana S. Richards | Administrative Assistant II |
| Mike J. Rinaldi | Technical Theater/Performing Arts Instructional Specialist |
| Karin J. Rose | Administrative Assistant II |
| Cheryl A. Rothman | Administrative Assistant II |
| Celestine L. Rowe-Smith | Counseling Assistant I |
| Jocelyn N. Santos | Admissions and Records Assistant II |
| Hermina Sarkis-Kelly | Instructional Assistant II |
| Andra P. Schreibman | Financial Aid Officer |
| Carolyn Y. Scott | Executive Assistant, Vice President Academic Services |
| Jeffrey B. Sperry | Instructional Tech Support Specialist |
| Todd A. Steffan | Veterans Program Coordinator |


| Meghan C. Swanson | Instructional Assistant II |
| :--- | :--- |
| Marcus W. Thompson | Instructional Assistant II |
| Julie C. Thornburg | Executive Assistant, Vice President |
| Student Services |  |
| Alison K. Thurston | Laboratory Technician II |
| Jesse J. Toscano | Security Officer |
| Heidi Ulrech | Telecommunications Coordinator |
| Daysi A. Valle | Student Services Specialist II |
| Scott A. Vigallon | Instructional Technology/Open Learning |
| Jeanne M. Virgilio | Early Childhood Development |
| James D. Weston | Laboratory Technician IV |
| Gary Wilkes | Laboratory Technician II Development Coordinator |
| Karen M. Zeigler | Alternative Media Technology Specialist |

## Las Positas College Bookstore

| Nolan M. Howe | Manager |
| :--- | :--- |
| Jeanne M. Madeira | Customer Service Manager |
| Heidi M. Carey | Shipping and Receiving |

## Las Positas College Health Center

| Catherine Arthur | Nurse Practitioner, ValleyCare |
| :--- | :--- |
| Dana Barbero | Nurse Practitioner, ValleyCare |
| Chris Faubion | Health Assistant, ValleyCare |
| Susan Williams | Nurse Practitioner, ValleyCare |
| Josie Zils | Health Assistant, ValleyCare |

## Administration of Justice

| Captain David Brady | ACSO Regional Training Center |
| :--- | :--- |
| Julie Duncan | Tri-Valley ROP |
| Dr. Neal Ely | Las Positas College |
| Chief Michael Fraser | Las Positas College |
| Shay Galletti | Tri-Valley ROP |
| Officer Floyd Gill | Dublin Police Services / Tri-Valley ROP |
| Sgt. James Horton | Livermore Police Department |
| Officer Dave Lang | Tri-Valley ROP |
| Sgt. Paul Liskey | ACSO Regional Training Center |
| Lt. Anthony Lopez | ACSO Regional Training Center |
| Eileen McAndrew | Alameda County District Attorney's |

Comm. Tom McCarthy
Dublin Police Services

Chief Mike McQuiston

Michelle Miller

Timothy Rien
Chief James Rose
Lt. Tara Russell
Kathy Ryals

Chief David Spiller
Gena Steward
Jack Stewart
Chief Steve Sweeney
Mark Tarte

Albany Police Department / Las Positas College

Granada High School
Attorney
Pinole Police Department
ACSO Regional Training Center
Alameda County Public Defender's Office

Pleasanton Police Department
Las Positas College
Las Positas College
Livermore Police Department
Las Positas College

## Automotive Technology

| Patrick Chad | Region II Manager, BAR |
| :---: | :---: |
| Don Danner | Tri-Valley ROP |
| Chuck Depew | Monument Car Parts |
| Jon Fowkes | Automotive Industry Apprenticeship |
| Manuel Franko | Las Positas College |
| Bob Furton | Snap-On Tools |
| Shay Galletti | Tri-Valley ROP |
| Mike Gannon | Les Schwab Tires |
| Jeff Gill | Gil's Body Works |
| Brian Hagopian | Las Positas College |
| Greg Harrison | Golden Gate Transmission |
| Sandy Harrison | Golden Gate Transmission |
| Dean Johnson | D and M Auto Parts |
| Terry Johnson | Las Positas College |
| Mike Langholff | America's Tire Company |
| Ken Limtiaco | Ken's Tires |
| Bruce Luther | Rock and Roll Auto Recycling |
| Carmen L. McCauley | Las Positas College |
| Terry McCune | Big O Tires |
| Tim Nilson | AAA |
| Don Nilson | Las Positas College, Retired |
| Dr. Janice Noble | Las Positas College |


| Jeff Pawlowski | Allen's Automotive \& Towing |
| :--- | :--- |
| George Romero | Tri-Valley Auto Body |
| Dave VanBrasch | Las Positas College |
| Howard Veach | Accurate Auto Care |
| Ed Woodworth | Tri-Valley ROP |

## Business and Marketing

| Kirsten Erath Barranti | Barranti Law Group |
| :--- | :--- |
| William Bateson | Las Positas College |
| Diane Centoni | Tri-Valley ROP |
| Rajeev Chopra | Las Positas College |
| Bob D'Elena | Las Positas College |
| Bill Denyer | Las Positas College |


| Michael Fanselau | San Ramon Regional Medical Center |
| :--- | :--- |
| Leslie Gravino | Las Positas College | Buckle

Northwestern Mutual
Safeway Corporation
Las Positas College
Certified Public Accountant

Safeway Corporation
Las Positas College
Merrill Lynch
Marketing Consultant
Las Positas College
Chase Bank
Safeway, Northern CA Division
Lawrence Livermore National Laboratory
Consultant
Las Positas College
Las Positas College
Las Positas College

## CIS/Computer Networking Technology

| Victoria Austin | Las Positas College |
| :---: | :---: |
| Richard Bliss | Consultant |
| Robert Cooley | Diablo Valley College |
| David Coursey | David Coursey Associates |
| Moh Daoud | Las Positas College |
| Teresa Donat | Las Positas College |
| Diane Dorr | Las Positas College |
| Julie Duncan | Tri-Valley ROP |
| Randy Fewel | Tri-Valley ROP |
| Debbie Fields | Las Positas College |
| Sean Fitzgerald | Visual Numerics, Inc. |
| Garth Gelster | CSU Eastbay |
| Shay Gialletti | Tri-Valley ROP |
| John Gonder | Las Positas College |
| Leslie Gravino | Las Positas College |
| LaVaughn Hart | Las Positas College |
| Jenna Heath | Northwestern Mutual |
| Don Hester | Maze \& Associates |
| Jorja Ivie | Tri-Valley ROP |
| Michelle Kahn | Sandia National Laboratories |
| Robert Main | Las Positas College |
| Pavan Manocha | Cympliciti, Inc. |
| Carmen L. McCauley | Las Positas College |
| Dr. Janice Noble | Las Positas College |
| Warren Otte | IT Consultant |
| Diana Pereia | Sandia National Laboratories |
| Wayne Phillips | Chabot College |
| Elena Ravnik | Teradata Corporation |
| Fred Rutledge | Santa Rita Jail |
| Colin Schatz | Las Positas College |
| David Seals | Velosel |
| Patrick Steven | Lawrence Livermore Laboratory |
| Skiff Sumner | Consultant |
| Anthony Tuiono | Las Positas College |
| Gail Vardanega | Las Positas College |
| Adam Vasquez | Kaiser Permanente |

## Disabled Students Programs and Services

| John Carter | Granada High School |
| :--- | :--- |
| Leyda Cedeño |  |
| Sandy Cline | California High School |
| James Gioia | Las Positas College |
| Gina Gourley | Pleasanton Unified School District |
| Leslie Gravino | Las Positas College |
| Kathy Green | Las Positas College |
| Brian Owyoung |  |

## Early Childhood Development

| Sheryl Azelton | PUSD - Horizon School Aged Parents |
| :---: | :---: |
| Neva Bandelow | Alameda Child Care Planning Council |
| Nancy Blair | LARPD |
| Ana Del Aguila | Las Positas College \& Chabot College |
| Judy Del Tredici | Tri-Valley ROP, Retired |
| Becky Egler | Livermore Area Recreation \& Park District |
| Jackie Fitzgerald | Las Positas College |
| Shay Galletti | Foothill High School/Tri-Valley ROP |
| Regina Garcia | CAPE, Inc |
| Linda Guthrie | Las Positas College |
| Kathie Hammer | John Knox Co-op Preschool |
| Debbie Harvey | Amador High School |
| Becky Hopkins | Gingerbread Preschool |
| Janice Inman | Livermore High School |
| Anne Loyola | Las Positas College |
| Marge Maloney | Las Positas College, Retired |
| Diana McGregor | Chabot College |
| Jennifer Montgomery | Holy Cross Preschool |
| Dr. Janice Noble | Las Positas College |
| Laura Reno | LLESA Children's Center |
| Zina Rosen-Simon | Las Positas College |
| Jennifer Rusinko | Child Care Links |
| Christy Samson | Child Care Links |
| Dawn Scanlon | Livermore ROP |
| Jamie Smith | Amador High School |
| Penna Steele | Sonshine Enrichment Center Preschool |
| Nadiya Taylor | Las Positas College |


| Christine Tibbetts | Pleasanton Unified School District |
| :---: | :---: |
| Christie Verarde | Chabot College |
| Jeanne Virgilio | Las Positas College |
| Dr. Beth Walters | Pleasanton Unified School District |
| Catherine Wolfe | Granada High School |
| Engineering |  |
| Carolyn Baranouskas | Las Positas College |
| Anita Behnke | National Security Technologies |
| Tim Briggs | Sandia National Laboratories |
| Dr. Neal Ely | Las Positas College |
| Keith Level | Las Positas College |
| Dr. Gary R. Martin | University of the Pacific |
| Dr. Saeid Motavalli | California State University, East Bay |
| Dan Walsh | California Polytechnic State University |
| Alec Willis | Sandia National Laboratories, Retired |
| Environment/Safety and Health |  |
| Advisory Board |  |
| Jon Anacker | ABM Janitorial Services |
| Patrick Barry | Lawrence Livermore National Laboratory, Retired |
| Phillip Broughton | Univerity of California, Berkeley / Las Positas College |
| Dr. Neal Ely | Las Positas College |
| Arlynn R. Grimm | Kaiser Permanente, Retired |
| Robert Jasinski | LiftSafe Inc. |
| Dr. James S. Johnson | JS and Associates / Las Positas College |
| Gregory Jones | Lawrence Livermore National <br> Laboratory / Las Positas College |
| Tan Matosian | State of CA, Cal/OSHA / Las Positas College |
| Steve McConnell | Lawrence Livermore National Laboratory / Las Positas College |
| Stephen Motzko | Simpson Strong-Tie |
| Alvin Oey | Guittard Chocolate Co. |
| Dr. Sarah Palmer | Tri-Valley ROP |
| Kathleen Shingleton | Lawrence Livermore National Laboratory |

## Extended Opportunities Programs and Services

| Alexandra David | Supportive Housing Services Director, <br> Abode Services |
| :--- | :--- |
| Lorraine Dietrich | Member, Livermore City Council <br> CalWORKs Counselor Assistant, <br> Las Positas College |
| Ann Jones | Financial Aid Specialist, Las Positas <br> College |
| Louise Martinez | Enrollment Counselor, CSU East Bay |
| Leslie D. May | Consultant/Counselor |
| Diana Rodriguez | Vice President Student Services, <br> Las Positas College |
| Michael Schwarz | Counselor, Las Positas College |
| Bob See | Director of Student Services and Special <br> Education; Livermore Valley Joint <br> Unified School District |
| Christina Tinsley | Transfer Alliance Project Coordinator |
| Kimberly Tomlinson | CalWORKs Coordinator, Las Positas <br> College |

## Fire Service Technology/EMS

| Lori Jean Adkins | Las Positas College |
| :---: | :---: |
| Asst. Chief Dan Benfield | Alameda County Fire Department |
| Dr. Neal Ely | Las Positas College |
| Lt. George Freelen III | Oakland Fire Department/ Las Positas College |
| Fire Chief Sheldon Gilbert | Alameda County Fire Department |
| Zel Helstrom | Las Positas College |
| Capt. Terrance Hogue | San Francisco Fire Department/ Las Positas College |
| Ronald Johansen | Las Positas College/San Francisco Fire Department |
| Tim Kordes | Livermore-Pleasanton Fire Department/ Las Positas College |
| Chief Derek Krause | San Ramon Valley Fire Protection District/Las Positas College |
| Jim Linhart | Las Positas College |
| John McPartland | BART/Oakland Fire Department, Retired |
| Fire Chief James Miguel | Livermore-Pleasanton Fire Department/ Las Postias College |
| Deputy Chief | Livermore-Pleasanton Fire |
| Jane Moorhead | Department/Las Positas College |
| Deputy Chief David Rocha | Alameda County Fire Department/ <br> Las Positas College |


| Capt. John Torres | Alameda County Fire Department/ Las Positas College |
| :---: | :---: |
| Chief John Walsh | Alameda County Fire Department/ Las Positas College |
| Capt. Sebastian Wong | San Francisco Fire Department/ Las Positas College |
| Robert Young | Alameda County Public Health Department/Las Positas College |
| Chief Jeff Zolfarelli | Livermore-Pleasanton Fire Department/ Las Positas College |
| Health Sciences |  |
| Joe Carlucci | ValleyCare Health System |
| Dave Curtis | Palo Alto Medical Foundation |
| Bryce Custodio | Dublin High School |
| Edine Davis | Kaiser Permanente |
| Julie Duncan | Pleasanton School District |
| Laurie Erceg | Tri-Valley ROP |
| Melanie Firpo | ValleyCare Health System |
| Randy Geddings | California Medical Assistants Association |
| Shay Galletti | Tri-Valley ROP |
| Jeff Hughes | Palo Alto Medical Foundation |
| Jorja Ivie | Tri-Valley ROP |
| Susan Komanetsky | Las Positas College |
| Karen Lounsbury | ValleyCare Health System |
| Carmen McCauley | Las Positas College |
| Barbara Morrissey | Las Positas College |
| Dr. Janice Noble | Las Positas College |
| Matthew Reed | ValleyCare Health System |
| Susanne Scott | Dept. of Veteran's Affairs |

Horticulture/Viticulture and
Winery Technology

| Dr. Earl Ault | Cedar Mountain Winery |
| :--- | :--- |
| Dr. Linda Ault | Cedar Mountain Winery |
| Chris Chandler | Livermore Valley Winegrowers <br>  <br> Dr. Neal Ely <br> David Everett |
| Las Positas College |  |
| Mike Gatzman | Las Positas College |
| Splend A. Sblendorio | Las Positas College |

Pharmacy Technology

| Priti Chatwani | The Medicine Shoppe |
| :---: | :---: |
| Barry Fong | Stoneridge Pharmacy |
| Leslie Gravino | Las Positas College |
| Carey Kopay | Las Positas College |
| Maryam Maghsoodria | Curascript |
| Carmen McCauley | Las Positas College |
| Dr. Janice Noble | Las Positas College |
| Dr. Dennis Ong | ValleyCare Health System |
| Vicki Shipman | Las Positas College |
| Photography |  |
| Jason Anaya | LPC Photography Instructor; Anaya Photography |
| Teresa Gilman | Author, Producer |
| Steve Babuljak | Babuljak Photography |
| Deb Bailey | Granada High School Instructor |
| Jeff Bennett | Photographer |
| Lia Cecaci | LPC Photography Lab Technician; Photographer |
| Deanna Horvath | LPC Photography Instructor |
| Jonathon Miller | Photographer |
| John Ruys | LPC, Interim Dean, Arts \& Communication |
| Stephanie Secrest | Photographer; Photo Journalist |
| Heather Sumpter | Heather Elizabeth Photography |
| Stephanie Taylor | Photographer |

## Surgical Technology

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| :--- | :--- |
| Mary Kay Dunn | ValleyCare Health System |
| Audrey Gabel | Las Positas College |
| Karen Hendricks | Las Positas College |
| George Johnson | ValleyCare Health System |
| Dr. Yen-Chung A Lee | ValleyCare Health System |
| Dr. Janice Noble | Las Positas College |
| Joe Snelling | Las Positas College |
| Teresa Wagner | ValleyCare Health System |


| Carryl Walker | Community Member |
| :--- | :--- |
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| :--- | :--- |
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| Jill Carbone | Faculty, Las Positas College |
| Dr. James Gioia | Transfer, Las Positas College Las Positas College |
| Scheanelle Green | EOP\&S, Las Positas College |
| Dr. Susan Hiraki | Director of Research, Las Positas College |
| Dr. Amber Machamer | California State University, East Bay |
| Louise Martinez | St. Mary's College |
| Angelica Moore | Faculty, Las Positas College |
| Cindy Rosefield | Counselor, Las Positas College |
| Michael Schwarz | Faculty, Las Positas College |
| Brenda Weak |  |

## Visual Communications

| Eric Berendt | LPC Visual Communications Instructor |
| :--- | :--- |
| Chris Cusimano | Independent Producer, Miner |
| Productions |  |
| Shay Galletti | Coordinator, Tri-Valley ROP |
| Tito Hamze | Guy-3 Hooligan Productions |
| Jorja Ivie | TVi-Valley ROP, Director, Student Support |
| Nick Mahar | LPC Visual Communications Instructor |
| Travis Musser | Centaurus Entertainment |
| Sandra Myers | Ogden Costa Creative |
| Kyle Ogden | Communication |
| John Ruys | U.C. Merced Video Producer |
| Jason Ryder | ROP/Dublin High School Instructor |
| Brett Shapiro | TV 30 Director/Camera Operator |
| Macartney Stevens | Goon Squad Pictures, Inc. |
| Rob Stiles |  |

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Please note: The College is undergoing renovation and construction. Some noted building numbers may have changed. Please check the campus map at http://www.laspositascollege.edu/about/map.php for building updates.


3000 CAMPUS HILL DRIVE
LIVERMORE, CA 94551 • 925.424.1000
www.laspositascollege.edu


[^0]:    *Courses may be also applied to Area 4

    Earning this Certificate of Achievement WILL NOT replace the "IGETC Certification" document. The "Certification of IGETC" is a SEPARATE PROCESS. The student must request IGETC Certification in the Counseling Office after admission to the transfer institution.

[^1]:    *Students may not receive more than 30 semester units for pre-collegiate basic skills courses. English as a Second Language and learning disabled students are exempt.

[^2]:    CS 21 COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE PROGRAMMING

    4 UNITS
    Basics of machine architecture, machine language, assembly language, operating system and higher level language interface. Data representation, instruction representation and execution, addressing techniques and use of macros. Space and time efficiency issues. Input/ output including video modes. Procedures including parameter passing and linkage to higher level languages. Prerequisite: Computer Science 1 (completed with a grade of " $C$ " or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC
    Degree Applicable, Credit
    Grading Option: OP

[^3]:    NUTR 1 NUTRITION
    3 UNITS
    The basics of nutrition, including nutrients, nutritional needs, digestion/absorption, and the role of nutrition in the maintenance of health. Designed to meet the needs of students majoring in the science and/or health fields. Strongly recommended: Chemistry 30A. 3 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: E
    Degree Applicable, Credit
    Grading Option: OP

