How to Read Course Descriptions

Every course description includes the course name (the abbreviation of the department followed by the course number, for example, ENGL-101A) and the course title. There is also the number of units earned upon successful completion of the course as well as the means by which the units are earned, either through a lecture, laboratory, or combination of lecture and laboratory experience. Course prerequisites, corequisites, and advisories are identified, as applicable. If the course is cross-referenced to an identical course in another department, then that information is indicated and allows students the option of determining within which department they choose to receive credit. The Accepted For Credit tag indicates if the course transfers to either or both the University of California (UC) and California State University (CSU) systems. The catalog description gives a summary view of the course content, and also indicates if the course may be repeated for credit and what grading policies apply to the course.

Course Requisites

A “Prerequisite” is a course that must be successfully completed with a grade of C or better before students can register for another course. The prerequisite course contains knowledge and skills that enable students to be more prepared for the next course. For example, students must complete CHEM-102, Preparation for General Chemistry, with a grade of C or better before being able to register for CHEM-101A, General Chemistry.

A “Corequisite” is a course that must be taken during the same term as another course. Students need to take both courses during the same semester as information is shared between the courses and students have a better chance of succeeding by taking the courses simultaneously. For example, students who register for MUS-110A, Music Theory and Harmony, must also register for MUS-111A, Musicianship I, during the same semester.

An “Advisory” is a course that students are recommended to take before registering in another course, but are not required to do so. Students are encouraged to take an Advisory course before registering for another course as the information in the first course helps students succeed in the second course. For example, HIST-117B, History of the United States, has an Advisory of ENGL-101A, Reading and Written Composition.

Students have the right to challenge the prerequisite or corequisite for any one of the following reasons:

1. The student has the knowledge or ability to succeed in the course or program despite not meeting the prerequisite or corequisite (student documentation required).
2. The student will be subject to undue delay in attaining the goal of his or her educational plan because the prerequisite or corequisite course has not been made reasonably available.
3. The prerequisite or corequisite has not been established in accordance with the District’s process of establishing prerequisites and corequisites (regulations and District approved processes are available in the Office of the Vice President, Academic Affairs.).
4. The student believes the prerequisite or corequisite is either unlawfully discriminatory or is being applied in an unlawful discriminatory manner.

Written documentation to substantiate the challenge must be provided. Challenge petitions may be obtained from the Counseling Department.
Course Identification Numbering System (C-ID)

The Course Identification Numbering System (C-ID) is a statewide numbering system independent from the course numbers assigned by local California community colleges. A C-ID number included in a course listing signals that participating California public colleges and universities have determined that courses offered by other California community colleges are comparable in content and scope to courses offered on their own campuses, regardless of their unique titles or local course numbers. Thus, if the catalog lists a course bearing a C-ID number, such as C-ID CHEM 110, students at that college can be assured that the course will be accepted in lieu of a course bearing the C-ID CHEM 110 designation at another community college. In other words, the C-ID designation can be used to identify comparable courses at different California community colleges. However, students should always go to www.assist.org to confirm how each college’s course will be accepted for transfer credit at a particular university.

The C-ID numbering system is useful for students attending more than one California community college. Many of the transferable courses students need as preparation for transfer have been approved for C-ID. Since these course requirements may change and because courses may be modified, qualified for, or deleted from the C-ID database, students should always check with a counselor to determine how C-ID designated courses fit into their educational plans for transfer.

Students may consult the course listings in the Ohlone catalog, WebAdvisor (https://webadvisor.ohlone.edu), or ASSIST (www.assist.org) for Ohlone courses that have been approved for C-ID. Counselors can always help students explain this information.

Accepted for Credit

Units earned will be accepted in transfer at CSU and/or UC. Students should see a counselor or go to ASSIST (www.assist.org) to determine if the units satisfy general education, major, or elective requirements at a specific CSU or UC Campus.

Grade Options

Ohlone has four grade options for credit and noncredit courses. The grade option for each course appears in parentheses towards the end of each course listing in this catalog and next to the Grade Option listing in WebAdvisor.

CR Course offered for pass/no pass only.
GC Course offered with student given the option to enroll for pass/no pass or for a letter grade.
GR Course offered for letter grade only. These courses are not eligible for pass/no pass grading.
NG Course has no grade, no credit; used for noncredit courses.

Additional information about the pass/no pass grade options (CR and GC) is available in Chapter 5 of this catalog.

Multi-Departmental Courses

Selected Topics (210, 211, 212, 213, 214, 215)

These courses are designed to offer instruction in topics of current concern. The topics selected are related to current Ohlone departments, but the content is not necessarily offered within the regular curriculum. Selected Topics are offered by most departments. Selected Topics courses are identified by the number 210 for half-unit courses, 211 for one unit courses, 212 for two unit courses, 213 for three unit courses, 214 for four unit courses, and 215 for five unit courses. The maximum number of units from Selected Topics which may be used to apply toward the associate degree is eight units. Selected Topics courses are not CSU or UC transferable.

Special Projects (201, 202, 203)

These courses are designed for students who wish to undertake an individual study or to complete research related to a particular field. In compliance with State regulations, Special Projects courses are available for one, two, or three units. These courses are identified by the number 201 for one unit courses, 202 for two unit courses, and 203 for three unit courses. The maximum number of units which can be earned at any time, in any combination of Special Projects courses, is seven units. A Special Projects Authorization Form must be completed and submitted to the Office of Admissions and Records on the Fremont campus in order to register for a Special Projects course.

Public Safety Courses

Ohlone College is a member of the South Bay Regional Public Safety Training Consortium. Vocational training courses are offered in various areas including, but not limited to, the following: Correctional Officer, Law Enforcement Officer, Reserve Police Officer, Dispatcher, Fire Technology, Probation Officer, and Juvenile Hall Counselor. The Consortium is funded by various regional community colleges to provide vocation-specific training which may require special facilities, special training conditions, or is presented outside of the schedules of regular college classes. Students who would like a schedule of these classes or more information on specific programs may call 408-229-4299.

The application and registration process is completed at the South Bay Regional Public Safety Training Consortium located at 360 Bailey Avenue in San Jose. These courses are open to the public. Students who would like information about a career in any of these programs should call 408-229-4299.

Noncredit Courses

Noncredit courses are zero unit courses and are offered free of charge. Noncredit courses are intended for students who want to gain general knowledge, learn a new skill, upgrade existing skills, enrich their understanding about a wide range of topics, or develop personal interests. Noncredit courses assist students seeking to increase their job skills or improve math or English proficiency. Noncredit courses are beneficial for students reentering the workforce, seeking continuing education for job advancement, looking to improve their skills before attempting a college course for credit, and lifelong learners.

(continued on next page)
Noncredit courses have no repeatability limitations, so students may take a noncredit course as many times as necessary to learn the course content. Noncredit courses are not applicable towards an associate degree. Ohlone students may register for both credit and noncredit courses as long as they are in good standing with Ohlone. Upon completion of a series of required courses, students may earn a noncredit certificate of completion or noncredit certificate of competency. Additional information about Ohlone’s noncredit curriculum is available at www.ohlone.edu/noncredit.

Noncredit courses are listed in the following departments in this catalog: Business Administration (BA); Business Supervision Management (BSM); Computer Applications and Occupational Technology (CAOT); Computers, Networks, and Emerging Technology (CNET); Deaf Studies (DEAF); Engineering (ENGI); English (ENGL); English as a Second Language (ESL); Graphic Arts/Computer Graphics (GA); Mathematics (MATH); and Multimedia (MM). Requirements for earning a noncredit certificate are available in chapter 7 of this catalog.

Academic Division Information

There are eight academic divisions at Ohlone including Business; Counseling, Student Support, and Success; Deaf Studies; Health Sciences; Kinesiology, Athletics, and Arts; Language, Communication, and Academic Success; Science, Engineering, and Mathematics; and Social Sciences. Following are the departments contained within each academic division and the contact information for each division.

Division: Business
- Departments: Business Administration (BA); Business Supervision Management (BSM); Real Estate (RE); Work Experience Education (WEX)
- Executive Dean: Andrew LaManque
- Location: Newark campus, Room NC1220
- Phone number: 510-742-2301

Division: Counseling, Student Support, and Success
- Departments: Career Services; Counseling; Learning Skills Program (LSP); Orientation and Placement; Personal Development (PD); Transfer Center
- Dean: Andree Thomas
- Division Administrative Assistant: Shawna Lujan
- Location: Fremont campus, Room 7342
- Phone number: 510-659-6037

Division: Deaf Studies
- Departments: American Sign Language (ASL), Deaf Preparatory Program (DEAF), Interpreter Training (INT)
- Interim Academic Dean: Robert Gabriel
- Division Administrative Assistant: Nora Chopelas
- Location: Fremont campus, Room 6203
- Phone number: 510-659-6269 (V/TTY)

Division: Health Sciences
- Departments: Allied Health (AH), Nursing (NUR), Physical Therapist Assistant (PTA), Respiratory Therapist (RT)
- Academic Dean: Robert Gabriel
- Division Administrative Assistant: Zelma Hunter
- Location: Newark campus, Room NC1324
- Phone number: 510-742-3100

Division: Kinesiology, Athletics, and Arts
- Departments: Art (ART), Athletics (ATHL), Graphic Arts/Computer Graphics (GA), Health (HLTH), Interior Design (ID), Kinesiology (KIN), Multimedia (MM), Music (MUS), Physical Education (PE), Theatre and Dance (TD)
- Academic Dean: Christopher Warden
- Division Administrative Assistant: Maria Rocha
- Location: Fremont campus, Room 9306
- Phone number: 510-659-6044

Division: Language, Communication, and Academic Success
- Departments: Arabic (ARBC), Broadcasting (BRDC), Chinese (CHIN), Communication Studies (COMM), English (ENGL), English as a Second Language (ESL), English Learning Center, Esports (ESPTS), French (FREN), Japanese (JIND), Journalism (JOUR), Learning Resource Center, Library Science (LS), Spanish (SPAN)
- Academic Dean: Mark Lieu
- Division Administrative Assistant: Dana Pope
- Location: Fremont campus, Room 3420K
- Phone number: 510-659-6173

Division: Science, Engineering, and Mathematics
- Departments: Anthropology (ANTH); Astronomy (ASTR); Biology (BIOL); Biology/Chemistry Learning Center; Biotechnology (BIOT); Chemistry (CHEM); Computer Applications and Occupational Technology (CAOT); Computers, Networks, and Emerging Technology (CNET); Computer Science (CS); Engineering (ENGI); Engineering Technology (ETEC); Geology (GEOG); Mathematics (MATH); Math Learning Center; Physics (PHYS)
- Academic Dean: Loretta Silverman
- Division Administrative Assistant: Irene Benavidez
- Location: Fremont campus, Room 1301L
- Phone number: 510-659-6191

Division: Social Sciences
- Departments: Administration of Justice (AJ); Chicano/Latino Studies (CHS); Consumer and Family Sciences (CFS); Early Childhood Studies (ECS); Education (EDUC); Environmental Studies (ENVS); Fire Technology (FT); Gender and Women’s Studies (WS); Geography (GEOG); History (HIST); Interdisciplinary Studies (IS); Law Enforcement (LE); Philosophy (PHIL); Political Science (PS); Psychology (PSY); Sociology (SOC)
- Academic Dean: Ghada Al-Masri
- Division Administrative Assistant: Sheila Holland
- Location: Fremont campus, Room 3316
- Phone number: 510-659-6216

Did you know???

Forty-three percent of California community college students are first generation college students.

Source: Community College League of California
Administration of Justice (AJ)

Division: Social Sciences  
Academic Dean: Ghada Al-Masri  
Division Administrative Assistant: Sheila Holland  
Location: Fremont campus, Room 3316J  
Phone number: 510-659-6216

This department offers Special Projects courses (AJ-201, AJ-202, and AJ-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

AJ-101 Administration of Justice  
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course covers the history and philosophy of administration of justice in America as well as describing the justice system itself and describing relationships of its various subsystems. The course also explores theories of crime, punishment, ethics, education, and training for professionalism in the justice system. (GR) C-ID AJ 110

AJ-107 Criminal Investigation  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU  
This course covers the nature of investigation; crime scene search and recording; interviews and interrogation; sources of information; case preparation; and investigative techniques in specific crimes. (GR) C-ID AJ 140

AJ-102 Criminal Law  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course covers concepts of criminal law: historical development, philosophy of law, and constitutional provisions. The course also covers classifications of crime and their application to justice, case law, methodology, and concepts of the law as a social force. (GR) C-ID AJ 120

AJ-108 Introduction to Forensic Anthropology  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
Cross-referenced Course: ANTH-108  
This course introduces the field of forensic anthropology through a study of the history and methods of forensic anthropology and the role it plays in the medico-legal system. Topics include the human skeletal system, forensic archaeology, recovery, and techniques for analyzing human skeletal remains. (GC)

AJ-104 Criminal Evidence  
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU  
This course covers the legal aspects of evidence: the origin, development, philosophy, and constitutional basis of evidence, along with constitutional and procedural considerations affecting arrest, search, and seizure; kinds and degrees of evidence; and rules governing admissibility. This course uses judicial decisions interpreting individual rights, plus case studies, to analyze the material presented. (GR) C-ID AJ 124

AJ-117 Police and Society  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
Advisory: ENGL-101A  
This course involves an in-depth exploration of the roles of AC practitioners and their agencies. Through interaction and study the student will become aware of interrelationships and role expectations among various agencies and the public. Emphasis is placed on professional image of Administration of Justice system and development of positive relationships between members of the system and the public. (GR) C-ID AJ 160

AJ-106 Criminal Procedure  
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU  
This course covers the principles and procedures of the justice system. The course is an in-depth study of the role and responsibilities of each segment within the Administration of Justice system—law enforcement, judicial, and corrections. (GR)

AJ-118 Criminology  
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course studies human behavior and the reasons and motivations why people commit crimes. This course also examines the nature and extent of crimes as well as causes and prevention of criminality. (GR) C-ID SOCI 160

AJ-119 Murder in America  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: PSY-104  
Advisory: ENGL-101A  
Accepted For Credit: CSU  
This course surveys the psychological and criminological aspects of murder throughout America, emphasizing serial killers, mass murderers, spree killers, and foreign and domestic terrorists and their victims. (GR)

AJ-121 Constitutional Law and the United States  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: PS-106  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU  
This course examines the development of judicial review and the evolving role of the U.S. Supreme Court through analysis of landmark decisions of the Court. In particular, this course will focus on a theoretical discussion exploring the plurality of methods of constitutional interpretation used by justices in the past and present. (GC)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ-123</td>
<td>Terrorism</td>
<td>3.00</td>
<td>Offered with ENGL-101A. Accepted For Credit: CSU. This course examines basic information about the structure and nature of domestic and international terrorism, and the roles of state and local law enforcement in national defense. This course is designed for Administration of Justice majors and those interested in becoming a police officer or working within Homeland Security. (GR)</td>
</tr>
<tr>
<td>AJ-131</td>
<td>Administration of Juvenile Justice</td>
<td>3.00</td>
<td>Offered with ENGL-101A. Accepted For Credit: CSU. This course covers the causes and forms of juvenile delinquency; the handling of juvenile offenders and victims; the prevention and repression of juvenile delinquency; the diagnosis and referral of juvenile offenders; the organization of community resources; and juvenile law and juvenile court procedures. (GR) C-ID AJ 220</td>
</tr>
<tr>
<td>AJ-220</td>
<td>Basic Police Academy</td>
<td>22.00</td>
<td>Offered with a score of 48; physical abilities assessment examinations provided by the Academy with a score of 320 or greater; 1.5 mile run in 14 minutes or less. Advisory: Penal Code Section 13511.5 requires that each applicant for admission to a basic course of training certified by the Commission (including the P.C. 832 course) that includes the carrying and use of firearms, and who is not sponsored by a local or other law enforcement agency, or is not a peace officer employed by a state or local agency, department, or district, shall be required to submit written certification from the Department of Justice that the applicant has no criminal history background which would disqualify him or her from owning, possessing, or having under his or her control a firearm. Medical clearance by a licensed physician and a valid driver’s license. PELLETB Written Exam with a score of 48. Physical Agility Exam provided by the Academy with a score of 320 or greater. This course satisfies all minimum required training mandates governed by the Commission on Peace Officer Standards and Training (POST) entry level Peace Officers. The course includes fundamental principles, procedures, and techniques of law enforcement, including criminal law, patrol procedures, cultural diversity, investigative procedures, report writing, defensive tactics, firearms, leadership, ethics, community relations, police vehicles operations, traffic enforcement, accident investigation, and first aid/CPR. This course is open to those students who meet and satisfy entry requirements including written examination, physical fitness examination, DOJ fingerprint clearance, and medical clearance. This course requires significant time commitments and outside coursework including uniform preparation, homework assignments, and equipment maintenance. (GR)</td>
</tr>
<tr>
<td>AJ-222</td>
<td>Interview and Interrogation</td>
<td>0.50</td>
<td>Offered with Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity and ability to demonstrate all of the following skills: familiarity with victims of a crime, victim interviews, people in custody; knowledge of criminal law. These skills will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. This course provides students with a workable plan when they enter interviews and interrogations. Topics include indicators of deception; cognitive interviews; verbal and nonverbal communication; interview and interrogation preparation; questioning dynamics; and interrogations. Not applicable to associate degree. (CR)</td>
</tr>
</tbody>
</table>

Ohlone College is a member of the South Bay Regional Public Safety Training Consortium. Vocational training courses are offered in various areas including, but not limited to, the following: Correctional Officer, Law Enforcement Officer, Reserve Police Officer, Dispatcher, Fire Technology, Probation Officer, and Juvenile Hall Counselor. The Consortium is funded by various regional community colleges to provide vocation-specific training which may require special facilities, special training conditions, or is presented outside of the schedules of regular college classes. Students who would like a schedule of these classes or more information on specific programs may call 408-229-4299.

The application and registration process is completed at the South Bay Regional Public Safety Training Consortium located at 560 Bailey Avenue in San Jose. Although open to the public, the majority of these courses are intended to serve the already employed. Students who would like information about a career in any of these programs should call 408-229-4299.
AJ-222A1  Interview and Interrogation  
9.00 hrs lecture, 31.50 hrs lab  
Units: 1.00  
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of the following skills: familiarity with victims of a crime; victim interviews; people in custody; knowledge of criminal law. These skills will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them.  
This course provides students with a workable plan when they enter interviews and interrogations. Topics include indicators of deception; cognitive interviews, verbal and nonverbal communication; interview and interrogation preparation; questioning dynamics; and interrogations. Not applicable to associate degree. (CR)

AJ-223  Canine Update  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Prerequisite: POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate the following minimum knowledge and skill levels: first aid; knowledge of K-9 equipment; knowledge of K-9 safety gear; knowledge of bite work commands; knowledge of case law related to K-9 deployment; officer safety.  
This course is designed to provide officers safety tactics, K-9 bite work, and building searches in a field environment, utilizing scenarios. The course provides updates on recent K-9 incidents and policies. Not applicable to associate degree. Repeatable = Unlimited times (CR)

AJ-227A135  Basic Police Academy Modular, Level I  
99.00 hrs lecture, 450.00 hrs lab  
Units: 13.50  
Prerequisite: AJ-228A5, POST Basic Police Academy Modular II, or POST Basic Police Academy Modular Level III  
Advisory: POST entry reading and writing exam; Academy physical agility test  
This course is certified by the Commission on Peace Officer Standards and Training (POST) and meets the content and hour requirements established by POST for Level I Reserve Police Officer. Not applicable to associate degree. (GR)

AJ-228A5  Basic Police Academy Modular Level II  
36.00 hrs lecture, 180.00 hrs lab  
Units: 5.00  
This course satisfies California Peace Officers Standards and Training (POST) minimum training mandates for Basic Academy Modular, Level II. This course covers fundamental principles, procedures, and techniques of law enforcement including criminal law, patrol procedures, cultural diversity, investigative procedures, report writing, community relations, defensive tactics, and firearms. This course, combined with a Level III certificate, meets the POST requirements for a Level II Reserve Police Officer. The Level II certificate is a prerequisite for entering Level I. Students must complete all three levels of the Modular Format Academy to be equivalent to a Basic Police Academy certificate. (GR)

AJ-229A4  Basic Police Academy Modular, Level III  
36.00 hrs lecture, 126.00 hrs lab  
Units: 4.00  
Prerequisite: Completion of the Academy application process (i.e. medical clearance, proof of medical insurance, DMV) and submission of DOJ Firearms clearance  
This course is certified by the Commission on Peace Officer Standards and Training (POST) and meets the content and hour requirements established by POST for Level III Reserve Peace Officers. Level III with Level II and Level I certificates meet the regular basic Academy requirements. (GR)

AJ-231  Police Continued Professional Training  
9.00 hrs lecture, 18.00 hrs lab  
Units: 0.50  
Prerequisite: AJ-220 or POST Basic Police Academy Certificate. Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of the following skills: familiarity with active shooters, use of force, firearms, patrol procedures, investigative report writing techniques, first aid, CPR, cultural diversity; knowledge of vehicle operations, defensive tactics techniques, lifetime fitness.  
This course provides agency discretionary training and/or required mandated training according to the Commission on Peace Officer Standards and Training (POST). Related topics include state/legislatively mandated training, tactical communication, officer safety, and legal updates. This course may be certified to meet continuing professional training standards prescribed by POST. Not applicable to associate degree. Repeatable = Unlimited times (CR)

AJ-235  Drug Investigation - 11550  
4.50 hrs lecture, 13.50 hrs lab  
Units: 0.50  
Prerequisite: AJ-220 or Basic POST Certificate  
This course familiarizes students with the commonly abused controlled substances, methods of acquisition, and the signs and symptoms. Not applicable to associate degree. Repeatable = Unlimited times (CR)

AJ-237  Field Training Officer  
9.00 hrs lecture, 31.50 hrs lab  
Units: 1.00  
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity and ability to demonstrate all of these skills and minimum knowledge: professionalism and ethics in policing; leadership in policing; sexual harassment policies  
This course is designed for students that have been or will be accepted into field training officer programs in law enforcement agencies. This course has certification from the California Commission on Peace Officer Standards and Training and follows the guidelines and standards under 832.3 of the Penal Code. Not applicable to associate degree. (CR)
**AJ-240A**  
**Advanced Officer Training**  
4.50 hrs lecture, 31.50 hrs lab  
Units: 0.50  
Prerequisite: AJ-220 or POST Basic Police Academy Certificate. Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate the following skills: familiarity with active shooters; use of force; firearms; patrol procedures; investigative report writing techniques; first aid and CPR; cultural diversity; knowledge of vehicle operations; defensive tactics techniques; lifetime fitness. These skills and abilities will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them.  
This course provides agency discretionary training and/or required mandated training according to the Commission on Peace Officer Standards and Training (POST), Correction Standards Authority (CSA), State Fire Training (SFT), or other regulatory agency. Related topics include state/legislatively mandated training, perishable skills, first aid/CPR, officer safety, legal updates, and cultural awareness. This course may be certified to meet continuing professional training standards prescribed by POST, CSA, SFT, or other regulatory agency where appropriate. Not applicable to associate degree. Repeatable = Unlimited times (CR)

**AJ-240A1**  
**Advanced Officer Training**  
9.00 hrs lecture, 36.00 hrs lab  
Units: 1.00  
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. Familiarity with and ability to demonstrate all of these skills and minimum knowledge: Officer safety; proper and safe firearms handling; proper and safe firearms storage; proper and safe firearms cleaning techniques; achieve a qualifying score during tactical handgun shooting; achieve a qualifying score during shotgun shooting; proper and safe tactical movement; proper and safe arrest and control technique; proper and safe ground fighting technique; proper and safe handling and use of chemical weapons; proper and safe handling and use of nonlethal weapons; Penal codes used in policing; Vehicle codes used in policing; Health and Safety codes used in policing  
This course provides agency discretionary training and/or required mandated training according to the Commission on Peace Officer Standards and Training (POST), Correction Standards Authority (CSA), State Fire Training (SFT), or other regulatory agency. Related topics include state/legislatively mandated training, perishable skills, first aid/CPR, officer safety, legal updates, and cultural awareness. This course may be certified to meet continuing professional training standards prescribed by POST, CSA, SFT, or other regulatory agency where appropriate. Not applicable to associate degree. Repeatable = Unlimited times (CR)

**AJ-242**  
**Police Supervisor**  
18.00 hrs lecture, 63.00 hrs lab  
Units: 2.00  
Prerequisite: AJ-220 or Basic POST Certificate  
This course emphasizes the basic elements of supervision and how they may be applied to police work. Essentials of good leadership and understanding of the basic needs of human beings as well as ways to stimulate subordinates to better performance are the contents of the course. Not applicable to associate degree. Repeatable = Unlimited times (CR)

**AJ-243A5**  
**Law Enforcement Seminar**  
9.00 hrs lecture, 18.00 hrs lab  
Units: 0.50  
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate the following minimum knowledge and skill levels: officer safety; investigation process; Americans with Disabilities Act; verbal communication used in policing; report writing; elements required to arrest for sex crimes  
Topics discussed in this course include a review of the Americans with Disabilities Act; protecting the rights of people with disabilities; responding to sexual assault and interviewing victims; completing a death scene investigation; and the structure and training of Reserve Officers. Not applicable to associate degree. Repeatable = Unlimited times (CR)

**AJ-245**  
**Citizen’s Police Academy**  
9.00 hrs lecture, 18.00 hrs lab  
Units: 0.50  
The purpose of the Citizen’s Police Academy is to enhance the relationship of the Police Department with the community by educating the citizen in various aspects of police operations. The citizen becomes more aware of what services the Police Department can and, in some situations, can’t provide; the methodologies and strategies behind the Police Department’s programs and tactics; as well as other important aspects of law enforcement, not only on a neighborhood level but also on a wider scale. Not applicable to associate degree. Repeatable = Unlimited times (CR)

**AJ-245A1**  
**Citizen Police Academy**  
50.00 hrs lecture  
Units: 1.00  
The purpose of the Citizen Police Academy is to enhance the relationship of the Police Department with the community by educating the citizen in various aspects of police operations. The citizen becomes more aware of what services the Police Department can and—in some situations—can’t provide; the methodologies and strategies behind its programs and tactics; as well as other important aspects of law enforcement, not only on a neighborhood level but also on a wider scale. Not applicable to associate degree. Repeatable = Unlimited times (CR)
AJ-246A6  Law Enforcement Field Training Program  
450.00 hrs lab  
Units: 6.00  
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. Familiarity with officer safety; proper and safe firearms handling, firearms storage, firearms cleaning techniques; Penal codes used in policing; Vehicle codes used in policing; Health and Safety codes used in policing; Welfare and Institutions codes used in policing; effective verbal communication used in policing; effective non-verbal communication used in policing; case law pertinent to policing; proper CPR technique; proper first aid technique; safe ground fighting technique; handling and use of chemical weapons; handling and use of non-lethal weapons. Ability to achieve a qualifying score during tactical handgun shooting; proper and safe arrest and control technique. This work experience course is designed to certify the completion of specifications described in the "Field Training Officer Guide" from the Commission on Peace Officer Standards and Training. Students are assigned in a patrol car, one-on-one with a certified Field Training Officer. The Field Training Program introduces a newly assigned officer to the personnel procedures, policies, and purposes of the individual law enforcement agency and provides the initial formal and informal training specific to the agency and the day-to-day duties of its officers. Not applicable to associate degree. Repeatable = Unlimited times (GR)

AJ-246A8  Law Enforcement Field Training Program  
640.00 hrs lab  
Units: 8.00  
Prerequisite: POST certified as a California Peace Officer  
This course is certified to law enforcement agencies in the state of California. The program is designed to certify the completion of specifications described in the Field Training Officer Guide from the Commission on Peace Officer Standards and Training. Students will be assigned in a patrol car, one-on-one with a certified Field Training Officer. The Field Training Program introduces a newly assigned officer to the personnel procedures, policies, and purposes of the individual law enforcement agency, and provides the initial formal and informal training specific to the agency, and the day-to-day duties of its officers. Not applicable to associate degree. Repeatable = Unlimited times (GR)

AJ-246A85  Law Enforcement Field Training Program  
680.00 hrs lab  
Units: 8.50  
Prerequisite: POST certified as a California Peace Officer  
This course is certified to law enforcement agencies in the state of California. The program is designed to certify the completion of specifications described in the Field Training Officer Guide from the Commission on Peace Officer Standards and Training. Students will be assigned in a patrol car, one-on-one with a certified Field Training Officer. The Field Training Program introduces a newly assigned officer to the personnel procedures, policies, and purposes of the individual law enforcement agency, and provides the initial formal and informal training specific to the agency, and the day-to-day duties of its officers. Not applicable to associate degree. Repeatable = Unlimited times (GR)

AJ-246A9  Law Enforcement Field Training Program  
720.00 hrs lab  
Units: 9.00  
Prerequisite: POST certified as a California Peace Officer  
This course is certified to law enforcement agencies in the state of California. The program is designed to certify the completion of specifications described in the Field Training Officer Guide from the Commission on Peace Officer Standards and Training. Students will be assigned in a patrol car, one-on-one with a certified Field Training Officer. The Field Training Program introduces a newly assigned officer to the personnel procedures, policies, and purposes of the individual law enforcement agency, and provides the initial formal and informal training specific to the agency, and the day-to-day duties of its officers. Not applicable to associate degree. Repeatable = Unlimited times (GR)

AJ-247  Field Training Officer Update  
9.00 hrs lecture, 13.50 hrs lab  
Units: 0.50  
Prerequisite: Field Training Officers employed with a law enforcement agency  
This course is designed to update Field Training Officers in evaluations, legal aspects, and changes to the Commission of Peace Officer Standards and Training. Not applicable to associate degree. Repeatable = 3 times (CR)

AJ-248  Instructor Development  
9.00 hrs lecture, 36.00 hrs lab  
Units: 1.00  
Prerequisite: AJ-220 or Basic POST Certificate  
This POST-certified course is designed to provide instruction for POST Academy instructors in adult learning principles including instructional planning skills, presentation, and facilitation techniques. Not applicable to associate degree. (CR)
**AJ-253A2 Homicide Investigation**

18.00 hrs lecture, 63.00 hrs lab  
Units: 2.00  
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of the following skills and minimum knowledge: officer safety; effective verbal communication used in policing; familiarity with effective non-verbal communication used in policing, case law pertinent to policing; evaluating statements, evidence, laboratory results, preservation of a crime scene, crime scene surveys, searches, photographs, handling evidence; knowledge of basic criminal investigation procedures.  
This course teaches students the highly specialized field of homicide investigation. The course covers the legal aspects of death investigation, homicide crime scene procedures, autopsy, psychological profiling, criminal psychology, laboratory work, gunshot, asphyxia, drowning, burning, cutting and stabbing, and interviewing techniques. Not applicable to associate degree. Repeatable = Unlimited times (CR)

**AJ-257 Special Weapons and Tactics (SWAT)**

54.00 hrs lab  
Units: 1.00  
Prerequisite: AJ-220; POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of these skills and minimum knowledge: Officer safety; proper and safe firearms handling, storage and cleaning techniques; ability to achieve a qualifying score during tactical handgun, shotgun, and AR15 shooting; proper and safe tactical movement; proper and safe arrest and control technique; proper and safe ground fighting technique; proper and safe handling and use of chemical weapons; proper and safe handling and use of non-lethal weapons; Penal, Vehicle, Health, Safety, Welfare, and Institutions codes used in policing; effective verbal and nonverbal communication used in policing; case law pertinent to policing; proper CPR technique; proper first aid technique; knowledge of the areas of the body which require maximum protection; knowledge of the elements of a lawful arrest; ground control positions, control holds, and takedown techniques used when controlling a suspect; knowledge of the general guidelines for use of handcuffs; knowledge of the guidelines for impact weapon use; ability to achieve a qualifying score during tactical handgun shooting, shotgun shooting, and AR15 Shooting; knowledge of basic firearms and ammunition safety; knowledge of cleaning techniques and required maintenance of firearms; knowledge of crowd control and riot management techniques; techniques used to secure the scene where a suspected explosive device has been located; knowledge of lifetime fitness; POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction.  
This course meets the training requirements of the California Commission on Peace Officer Standard and Training (POST). The course is designed to prepare students for the demands of departments’ special teams (e.g. SWAT, SRT, ERT, MERGE). The course includes qualification courses of firearms and tactical combat shooting. Not applicable to associate degree. (CR)

---

**Did you know??**

Eight in 10 police officers, firefighters, and EMTs are trained at a California community college.

*Source: California Community Colleges Chancellor’s Office*
AJ-259A15  **DA Investigator**  
18.00 hrs lecture, 27.00 hrs lab  
Units: 1.50  
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate the following minimum knowledge and skills: officer safety; firearm storage techniques; ability to achieve a qualifying score during tactical handgun, shotgun, and AR15 shooting; knowledge of tactical movement; arrest and control techniques; ground fighting techniques; knowledge of safe handling and use of chemical weapons; knowledge of safe handling and use of non-lethal weapons; Penal, Vehicle, Health and Safety, and Welfare and Institutions codes used in policing; effective verbal and nonverbal communication used in policing; case law pertinent to policing; knowledge of CPR techniques; knowledge of first aid techniques; knowledge of the areas of the body which require maximum protection; knowledge of the elements of a lawful arrest; ground control positions, control holds, and take-down techniques used when controlling a suspect; knowledge of the general guidelines for use of handcuffs; knowledge of the guidelines for impact weapon use; knowledge of basic firearms and ammunition safety; knowledge of cleaning techniques and required maintenance of firearms; knowledge of crowd control and riot management techniques; techniques used to secure the scene where a suspected explosive device has been located; knowledge of lifetime fitness.

This course meets the training requirements of the California Commission on Peace Officer Standard and Training (POST). The course is designed to prepare students for the demands of departments' special teams (e.g. SWAT, SRT, ERT, MERGE). The course includes qualification courses of firearms and tactical combat shooting. Not applicable to associate degree. Repeatable = Unlimited times (CR)

AJ-257A1  **Special Weapons and Tactics (SWAT)**  
18.00 hrs lecture, 63.00 hrs lab  
Units: 2.00  
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate the following minimum knowledge and skills: officer safety; firearm storage techniques; ability to achieve a qualifying score during tactical handgun, shotgun, and AR15 shooting; knowledge of tactical movement; arrest and control techniques; ground fighting techniques; knowledge of safe handling and use of chemical weapons; knowledge of safe handling and use of non-lethal weapons; Penal, Vehicle, Health and Safety, and Welfare and Institutions codes used in policing; effective verbal and nonverbal communication used in policing; case law pertinent to policing; knowledge of CPR techniques; knowledge of first aid techniques; knowledge of the areas of the body which require maximum protection; knowledge of the elements of a lawful arrest; ground control positions, control holds, and take-down techniques used when controlling a suspect; knowledge of the general guidelines for use of handcuffs; knowledge of the guidelines for impact weapon use; knowledge of basic firearms and ammunition safety; knowledge of cleaning techniques and required maintenance of firearms; knowledge of crowd control and riot management techniques; techniques used to secure the scene where a suspected explosive device has been located; knowledge of lifetime fitness.

This course meets the training requirements of the California Commission on Peace Officer Standard and Training (POST). The course is designed to prepare students for the demands of departments' special teams (e.g. SWAT, SRT, ERT, MERGE). The course includes qualification courses of firearms and tactical combat shooting. Not applicable to associate degree. Repeatable = Unlimited times (CR)

AJ-260  **Skills and Knowledge Modular Training**  
8.00 hrs lecture  
Units: 0.50  
Public Safety personnel employed in law enforcement, corrections, fire technology, and related fields are required by law to participate in continuing educational programs annually. These courses are developed and certified for acceptable minimum standards by either the Commission on Peace Officer Standards and Training, the State Board of Corrections-Standards in Training for Corrections, or the State Fire Marshall’s Office. Local advisory committees representing each of the respective disciplines have recommended these courses be modularized for more efficient delivery. Not applicable to associate degree. Repeatable = Unlimited times (CR)

AJ-260A1  **Skills and Knowledge Modular Training**  
9.00 hrs lecture  
Units: 1.00  
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. Familiarity with and ability to demonstrate these skills and minimum knowledge: Officer safety; proper and safe firearms handling; proper and safe firearms cleaning techniques; qualifying score during tactical handgun shooting; qualifying score during shotgun shooting; qualifying score during AR15 shooting; proper and safe tactical movement; proper and safe arrest and control technique; proper and safe ground fighting technique; proper and safe handling and use of chemical weapons; proper and safe handling and use of nonlethal weapons; Penal codes used in policing; Vehicle codes used in policing; Welfare and Institutions codes used in policing; proper CPR technique; proper first aid technique Public Safety personnel employed in law enforcement, corrections, fire technology, and related fields are required by law to participate in continuing educational programs annually. These courses are developed and certified for acceptable minimum standards by either the Commission on Peace Officer Standards and Training, the State Board of Corrections-Standards in Training for Corrections, or the State Fire Marshall’s Office. Local advisory committees representing each of the respective disciplines have recommended these courses be modularized for more efficient delivery. Not applicable to associate degree. Repeatable = Unlimited times (CR)
AJ-260A2  Skills and Knowledge Modular Training
18.00 hrs lecture, 63.00 hrs lab
Units: 2.00
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. Familiarity with and ability to demonstrate all of these skills and minimum knowledge: Officer safety; proper and safe firearms handling; proper and safe firearms storage; proper and safe firearms cleaning techniques; qualifying score during tactical handgun shooting; qualifying score during shotgun shooting; qualifying score during AR15 shooting; proper and safe tactical movement; proper and safe arrest and control technique; proper and safe ground fighting technique; proper and safe handling and use of chemical weapons; proper and safe handling and use of nonlethal weapons; Penal codes used in policing; Vehicle codes used in policing; Health and Safety codes used in policing; proper CPR technique; proper first aid technique
Courses are developed and certified for acceptable minimum standards by either the Commission on Peace Officer Standards and Training, the State Board of Corrections-Standards in Training for Corrections. These modules include Active Shooter; Pursuit Decision; First Aid and CPR; Police Baton; Terrorism Update; Tactical Firearms; Non-Deadly Intermediate and Low Level Force; Electronic Weapons Operator Course; and Defensive Driving. The respective disciplines have been modularized for more efficient delivery. Not applicable to associate degree. Repeatable = Unlimited times (CR)

AJ-260A3  Skills and Knowledge Modular Training
31.50 hrs lecture, 90.00 hrs lab
Units: 3.00
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. Familiarity with and ability to demonstrate all of these skills and minimum knowledge: Officer safety; proper and safe firearms handling; proper tactical shooting techniques; proper and safe tactical movement; proper and safe arrest and control technique; proper and safe handling and use of chemical weapons; proper and safe handling and use of nonlethal weapons; Penal codes used in policing; Vehicle Codes use in policing; vehicle and pursuit techniques; effective verbal communication used in policing; effective nonverbal communication used in policing; case law pertinent to policing; proper CPR technique; proper first aid techniques
Courses are developed and certified for acceptable minimum standards by either the Commission on Peace Officer Standards and Training, the State Board of Corrections-Standards in Training for Corrections, or the State Fire Marshall's Office. Local advisory committees representing each of the respective disciplines have recommended these courses be modularized for more efficient delivery. Not applicable to associate degree. Repeatable = Unlimited times (CR)

AJ-260A4  Skills and Knowledge Modular Training
99.00 hrs lecture, 72.00 hrs lab
Units: 4.00
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. Familiarity with and ability to demonstrate all of these skills and minimum knowledge: Officer safety; proper and safe firearms handling; proper tactical shooting techniques; proper and safe tactical movement; proper and safe arrest and control technique; proper and safe handling and use of chemical weapons; proper and safe handling and use of nonlethal weapons; Penal codes used in policing; Vehicle Codes use in policing; vehicle and pursuit techniques; effective verbal communication used in policing; effective nonverbal communication used in policing; case law pertinent to policing; proper CPR technique; proper first aid techniques
Courses are developed and certified for acceptable minimum standards by either the Commission on Peace Officer Standards and Training, the State Board of Corrections-Standards in Training for Corrections, or the State Fire Marshall's Office. Local advisory committees representing each of the respective disciplines have recommended these courses be modularized for more efficient delivery. Not applicable to associate degree. Repeatable = Unlimited times (CR)

AJ-260A5  Skills and Knowledge Modular Training
84.60 hrs lecture, 63.00 hrs lab
Units: 3.00
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. Familiarity with and ability to demonstrate all of these skills and minimum knowledge: Officer safety; proper and safe firearms handling; proper tactical shooting techniques; proper and safe tactical movement; proper and safe arrest and control technique; proper and safe handling and use of chemical weapons; proper and safe handling and use of nonlethal weapons; Penal codes used in policing; Vehicle Codes use in policing; vehicle and pursuit techniques; effective verbal communication used in policing; effective nonverbal communication used in policing; case law pertinent to policing; proper CPR technique; proper first aid techniques
Courses are developed and certified for acceptable minimum standards by either the Commission on Peace Officer Standards and Training, the State Board of Corrections-Standards in Training for Corrections, or the State Fire Marshall's Office. Local advisory committees representing each of the respective disciplines have recommended these courses be modularized for more efficient delivery. Not applicable to associate degree. Repeatable = Unlimited times (CR)

AJ-261  Skills and Knowledge Modular Training
40.00 hrs lecture
Units: 1.00
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. Familiarity with and ability to demonstrate all of these skills and minimum knowledge: Officer safety; proper and safe firearms handling; proper tactical shooting techniques; proper and safe tactical movement; proper and safe arrest and control technique; proper and safe handling and use of chemical weapons; proper and safe handling and use of nonlethal weapons; Penal codes used in policing; Vehicle Codes use in policing; vehicle and pursuit techniques; effective verbal communication used in policing; effective nonverbal communication used in policing; case law pertinent to policing; proper CPR technique; proper first aid techniques
Courses are developed and certified for acceptable minimum standards by either the Commission on Peace Officer Standards and Training, the State Board of Corrections-Standards in Training for Corrections, or the State Fire Marshall's Office. Local advisory committees representing each of the respective disciplines have recommended these courses be modularized for more efficient delivery. Not applicable to associate degree. Repeatable = Unlimited times (CR)

AJ-263  Supervisory Response to Critical Incidents
9.00 hrs lecture, 13.50 hrs lab
Units: 0.50
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate the following skills: familiarity with incident response, active shooter incidents, threat assessment, the role of law enforcement at a crime scene; knowledge of leadership concepts. These skills will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them.
This course teaches students how to respond to critical incidents while taking on a supervisor role. Topics include decision making, tactical considerations, command and control, resources, special weapons, and formulating a tactical plan. Not applicable to associate degree. (CR)
AJ-264A Investigation and Trial Preparation
9.00 hrs lecture, 18.00 hrs lab
Units: 0.50
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of the following skills. These skills will not be taught in the course; rather they will be the starting point for advanced officer training that builds upon them. Familiarity with the criminal justice system; juvenile law and procedures; search and seizure techniques; evidence collection; preservation and presentation; forensics; information systems. This course prepares students for criminal investigation and trial. Topics include evidence collection, investigative techniques, surveillance, trial preparation, investigator safety, and high tech crimes. Not applicable to associate degree. (CR)

AJ-265 Crisis Intervention Team Training
9.00 hrs lecture, 18.00 hrs lab
Units: 0.50
Prerequisite: Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of the following skills: officer safety; proper and safe tactical movement; proper and safe arrest and control technique; effective verbal communication used in policing; effective nonverbal communication used in policing. These skills and abilities will not be taught in the course; rather they will be the starting point for advanced officer training that builds upon them.

This course provides students with the proper techniques for safe and secure contact; detainment and transport of individuals with mental disorders (Welfare and Institution Code section 5150); developmental disabilities; intellectual disabilities; and substance use disorders. Not applicable to associate degree. (CR)

AJ-266 Rural Crime School
30.00 hrs lecture, 10.00 hrs lab
Units: 1.00
Advisory: POST Basic Certificate
This course includes instruction on basic livestock theft investigation; breed and brand recognition; individual case studies; rural crime; criminal law; trespass law; expert testimony; bureau of livestock ID role and responsibilities; proactive road enforcement in livestock work; crop and commodity enforcement; heavy equipment theft; and chemical theft. Not applicable to associate degree. Repeatable = Unlimited times (CR)

AJ-267 RADAR/LINAR Training
4.50 hrs lecture, 27.00 hrs lab
Units: 0.50
Prerequisite: AJ-220; Commission on Police Officer Standards and Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction; students must be familiar with Vehicle codes used in policing; vehicle and patrol techniques
The purpose of this course is to improve the speed enforcement through the proper and efficient use of RADAR (Radio Detection and Ranging)/LIDAR (Light Detection and Ranging) speed-measuring device. The course provides information on RADAR operations, enforcement principles of stationary and moving RADAR/LIDAR exercises, and case law. Not applicable to associate degree. Repeatable = Unlimited times (CR)

Allied Health (AH)

Division: Health Sciences
Academic Dean: Robert Gabriel
Division Administrative Assistant: Zelma Hunter
Location: Newark campus, Room NC1324
Phone number: 510-742-3100

AH-110 Medical Terminology
72.00 hrs lecture
Units: 4.00
Advisory: ENGL-151B
Accepted For Credit: CSU
This course is an introduction to medical terminology as used in the health professions. The course provides knowledge of the basic structure of the medical words and terms pertaining to the body as a whole. The course introduces learners to the nature and symptoms of the diseases and terms of the clinical procedures, laboratory tests, and abbreviations connected to medical diagnosis. (GR)

AH-151 Applied Clinical Pharmacology
36.00 hrs lecture
Units: 2.00
Accepted For Credit: CSU
This course provides the respiratory therapist student or practitioner with a working knowledge of drug therapy in current use with acutely ill patients. (GR)
American Sign Language (ASL)

Division: Deaf Studies
Interim Academic Dean: Robert Gabriel
Division Administrative Assistant: Nora Chopelas
Location: Fremont campus, Room 6203
Phone number: 510-659-6269

This department offers Special Projects courses (ASL-201, ASL-202, and ASL-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

ASL-101A  Principles of American Sign Language I
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Accepted For Credit: CSU & UC
This course covers the beginning fundamental principles of American Sign Language and introduces basic information about the Deaf community and Deaf culture. This course is required for students majoring in American Sign Language and Deaf Studies and is a prerequisite for students wishing to enter the Interpreter Preparation Program. Students are expected to attend outside events at their own expense. (GR)

ASL-101A4  Principles of American Sign Language I
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Accepted For Credit: CSU
This course covers the beginning fundamental principles of American Sign Language and introduces basic information about the Deaf community and Deaf culture. This course is required for students majoring in American Sign Language and Deaf Studies and is a prerequisite for students wishing to enter the Interpreter Preparation Program. Students are expected to attend outside events at their own expense. (GR)

ASL-101B  Principles of American Sign Language I
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: ASL-101A or two years of high school ASL
Accepted For Credit: CSU & UC
This course is an enhanced and expanded Level I study of the fundamentals of American Sign Language and is a further study of the Deaf community and Deaf culture. This course is recommended for students who have completed ASL-101A and who desire further study and review before taking ASL-102A. Students are expected to attend outside Deaf events at their own expense. (GR)

ASL-102A  Principles of American Sign Language II
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: ASL-101A
Accepted For Credit: CSU & UC
This course covers the fundamental principles of Level II American Sign Language and introduces more advanced information about the Deaf community and Deaf culture. This course is recommended for students majoring in American Sign Language and Deaf Studies and students wishing to enter the Interpreter Preparation Program. (GR)

ASL-102A4  Principles of American Sign Language II
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: ASL-101A
Accepted For Credit: CSU
This course covers the fundamental principles of Level II American Sign Language and introduces more advanced information about the Deaf community and Deaf culture. This course is recommended for students majoring in American Sign Language and Deaf Studies and students wishing to enter the Interpreter Preparation Program. (GR)

ASL-102B  Principles of American Sign Language II
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: ASL-102A
Accepted For Credit: CSU & UC
This course is an enhanced and expanded Level II study of the fundamentals of American Sign Language and is a further study of the Deaf community and Deaf culture. This course is recommended for students who desire further study and review after completing ASL-102A. Students are expected to attend outside events at their own expense. (GR)

ASL-103A  Principles of American Sign Language III
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: ASL-102A
Accepted For Credit: CSU & UC
This course covers the fundamental principles of Level III of American Sign Language for students who have completed ASL-102A and is a further study of the Deaf community and Deaf culture. The course is required for students majoring in American Sign Language and Deaf Studies and students wishing to enter the Interpreter Preparation Program. Students are expected to attend outside events at their own expense. (GR)
ASL-103B Principles of American Sign Language III
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: ASL-103A
Accepted For Credit: CSU & UC
This course is an expanded and enhanced Level III study of the fundamental principles of American Sign Language and is a further study of the Deaf community and Deaf culture. This course is recommended for students who have completed ASL-103A and who desire further study and review before taking ASL-104A. Students are expected to attend outside Deaf events at their own expense. (GR)

ASL-104A Principles of American Sign Language IV
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: ASL-103A
Accepted For Credit: CSU & UC
This course covers the fundamental principles of Level IV of American Sign Language and continues information about the Deaf community and Deaf culture. This course is required for students majoring in American Sign Language and Deaf Studies and students wishing to enter the Interpreter Preparation Program. Students are expected to attend outside events at their own expense. (GR)

ASL-104B Principles of American Sign Language IV
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: ASL-104A
Accepted For Credit: CSU & UC
This course is an enhanced and expanded Level IV study of the fundamental principles of American Sign Language and is further study of the Deaf community and Deaf culture. This course is recommended for students who desire further study and review after completing ASL-104A. Students are expected to attend outside events at their own expense. (GR)

ASL-140 Deaf Education
4.00 hrs lecture
Units: 3.00
Cross-referenced Course: DEAF-330
Advisory: Eligible for ENGL-151B and ENGL-163; ASL fluency
Accepted For Credit: CSU
This course has been designed to provide the student with a general orientation to Deaf education. The course provides an overview of the historical, philosophical, and social aspects of Deaf education. In addition, an orientation to problems, issues, research, legislation, and current trends in the field of education of the Deaf and Hard-of-Hearing students is provided. (GR)

ASL-142 Deaf Culture
4.00 hrs lecture
Units: 3.00
Advisory: ENGL-151B
Accepted For Credit: CSU & UC
This course introduces American Deaf culture with historical and cultural overview of the American Deaf community and its language, American Sign Language (ASL). Fundamental sociological and anthropological theories will be discussed. Students will be given an opportunity to study and understand minority group dynamics, attitudes, and behavior characteristics of the oppressed and oppressor people and the liberation movements. Analysis of the relationship of ASL to the history of American Deaf community will be conducted. (GR)

ASL-145 Deaf History, Audism, and Social Justice
36.00 hrs lecture
Units: 2.00
Accepted For Credit: CSU & UC
This course provides an in-depth study of noted Deaf persons; Deaf contributions to education and job markets; Deaf heritage; impact of international policies on Deaf education in the United States; history of California School for the Deaf; and history of Deaf-run institutions in the Bay Area. This course also provides in-depth discussion on the intersectionality of race and gender within Deaf communities, and the effects of audism and other forms of oppression on Deaf people. (GR)

ASL-150 Linguistics of ASL
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL-103A and ENGL-151B
Accepted For Credit: CSU & UC
This course is an in-depth study of the language of American Deaf people including grammar, morphology, phonology, semantics, and discourse of ASL. Taught in ASL only. (GR)

ASL-152 Advanced Fingerspelling
18.00 hrs lecture
Units: 1.00
Prerequisite: ASL-102A or ASL-102B
This course provides concentrated instruction in the receptive and expressive practice of advanced fingerspelling at increasing levels of complexity. The course is recommended for advanced students majoring in American Sign Language and Deaf Studies or students who are in the Interpreter Preparation Program. (GC)

ASL-154 Advanced American Sign Language Vocabulary
36.00 hrs lecture
Units: 2.00
Prerequisite: ASL-102A
This course is designed to help students develop comprehension and production skills of ASL words/signs and commonly used phrases. Regional variations of signs will be studied. Conceptual and semantic accuracy is emphasized. This course is recommended for intermediate students majoring in American Sign Language, Deaf Studies, and/or Interpreter Preparation. (GC)

ASL-155 Advanced American Sign Language Literature
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL-102A or ASL-102B
This course is an introduction to the discussion and analysis of ASL literature. Taught in ASL only. (GR)

ASL-156 Advanced Reception of ASL
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL-102A
Advisory: ASL-103A; students should have the ability to maintain a conversation in Level III ASL prior to enrolling in this course
This course is designed to strengthen the receptive skills of students interested in ASL by analyzing stories, jokes, and experiences of a large variety of Deaf signers. This course is recommended for advanced students in the American Sign Language and Deaf Studies program or in the Interpreter Preparation Program. Taught in ASL only. (GR)
**ASL-157 ASL Storytelling**
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL-103A
This course includes various levels and situations from simple to complex ASL stories. Expressive storytelling will incorporate ASL principles, sign order, facial expressions, body expressions, pantomime, etc. Receptive storytelling will involve critiquing and analyzing given stories. Taught in ASL only. (GR)

**ASL-158 Classifiers in ASL**
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL-102A or ASL-102B
In this course students will study the classifier system of ASL. Taught in ASL only. (GC)

**ASL-159 Interpreting As a Career**
18.00 hrs lecture
Units: 1.00
Accepted For Credit: CSU
This course will give students general information about the field of interpreting. Topics will include history; definitions of interpreting; modes and methods; the need for interpreting; code of ethics; interpreting settings; and evaluation and certification of interpreters. (GC)

**ASL-160 American Sign Language Field Work**
54.00 hrs lab
Units: 1.00
Prerequisite: ASL-101A
This course offers direct experience using ASL in formal and/or informal conversational settings or projects involving knowledge of ASL and Deaf culture. (GR)

**ASL-161 American Sign Language Field Work**
108.00 hrs lab
Units: 2.00
Prerequisite: ASL-101A
Experience signing in formal/informal conversational settings or a project involving ASL-linguistics and/or Deaf culture research. (GR)

**ASL-181A Conversational ASL I**
54.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course is designed to provide basic conversational skills in the language used by most Deaf people in the United States. Emphasis will be placed on basic American Sign Language structure. Students are expected to attend outside events at their own expense. (GR)

**ASL-181B Conversational ASL II**
54.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Prerequisite: ASL-181A
Accepted For Credit: CSU
This course is a continuation of the study of ASL as used in a conversational mode. This course is designed to provide intermediate conversational skill in the use of ASL. Students are expected to attend outside events at their own expense. (GR)

**ASL-183 ASL Skill Building**
54.00 hrs lab
Units: 1.00
Prerequisite: ASL-101A
This is a course for students wishing to become more proficient in using ASL and to further develop their vocabulary, ASL grammar, and fingerspelling skills. Taught in ASL only. (GC)
ANTH-104  Survey of North American Indian Cultures
$4.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course focuses on the prehistoric and historic distribution of Native American and First Nations populations and their respective cultures. Topics include the prehistoric and ethnographic record of North American Indian cultures, social organization, subsistence pattern, kinship structure, belief systems, political organization, post contact history, and contemporary issues. (GC)

ANTH-106  Magic, Witchcraft, and Religion
$4.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course involves the study of belief systems of cultures around the world, examining religious practice, spirituality, and myths from an anthropological perspective. Students analyze the functions of religious beliefs and the varied expressions of religion through ritual behaviors, use of magic, curses, and witchcraft. A multicultural perspective of religious beliefs and practices is explored, with an emphasis on how cultures confront fundamental questions of existence. (GC)

ANTH-107  Introduction to Linguistic Anthropology
$4.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course introduces the core concepts of linguistic anthropology, stressing the interactions between language and culture and between language and social identity. Structural linguistics explores the biocultural basis of language, as well as the study of phonetics, phonology, morphology, and syntax. Historical linguistics presents a cross-cultural study of language origins, language change, language families, and dialects. Ethnolinguistics and sociolinguistics present the study of language acquisition and nonverbal communication, emphasizing the relationship between language and culture, and issues of language conservation and language loss. (GC) C-ID ANTH 130

ANTH-108  Introduction to Forensic Anthropology
$4.00 hrs lecture
Units: 3.00
Cross-referenced Course: AJ-108
Accepted For Credit: CSU & UC
This course introduces the field of forensic anthropology through a study of the history and methods of forensic anthropology and the role it plays in the medico-legal system. Topics include the human skeletal system, forensic archaeology, recovery, and techniques for analyzing human skeletal remains. (GC)

ANTH-110  Anthropological Field Studies
18.00 hrs lecture, 18.00 hrs lab
Units: 1.00
Accepted For Credit: CSU
This course examines the four fields of anthropology through fieldwork. Through experiential learning students engage with the culture, natural history, archaeological history, and language of a specific area. This is a study abroad class; travel is required. (GC)

ARABIC (ARBC)

Division: Language, Communication, and Academic Success
Academic Dean: Mark Lieu
Division Administrative Assistant: Dana Pope
Location: Fremont campus, Room 3420K
Phone number: 510-659-6173

ARBC-101A  Elementary Arabic
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Accepted For Credit: CSU & UC
This course is an introduction to the speaking, reading, and writing of Arabic including fundamentals of grammar and Arabic culture. (GR)

ARBC-101B  Elementary Arabic
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: ARBC-101A
Accepted For Credit: CSU & UC
This course is a continuation to the speaking, reading, and writing of Arabic and includes fundamentals of grammar and Arabic culture. (GR)
Art (ART)

Division: Kinesiology, Athletics, and Arts
Academic Dean: Christopher Warden
Division Administrative Assistant: Maria Rocha
Location: Fremont campus, Room 9303
Phone number: 510-659-6044

This department offers Special Projects courses (ART-201, ART-202, and ART-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

ART-100 Survey of the Arts
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: IS-100, MUS-100, TD-100
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
Art, music, and theatre are explored in this course through discussion, historical review, and contemporary issues. The purpose of this course is to increase student's understanding and enjoyment of the arts. The course is taught by three instructors, one from each discipline. (GR)

ART-101 Art: An Introduction
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course is a survey of the visual arts, such as painting, sculpture, architecture, and performance art. Students will be introduced to the various functions of art in our society and learn to be more critical observers. (GC)

ART-103A Survey of Western Art from Prehistory Through the Middle Ages
72.00 hrs lecture
Units: 4.00
Advisory: ENGL-101B and ENGL-101C
Accepted For Credit: CSU & UC
This course provides an overview of western art and architecture from prehistory through the medieval period. (GC) C-ID ARTH 110

ART-103B Survey of Western Art from Renaissance to Contemporary
72.00 hrs lecture
Units: 4.00
Advisory: ENGL-101B or ENGL-101C
Accepted For Credit: CSU & UC
This course provides an overview of art and architecture from the Renaissance to the Contemporary period. (GC) C-ID ARTH 120

ART-103C Survey of Non-European Art
72.00 hrs lecture
Units: 4.00
Advisory: ENGL-101B or ENGL-101C
Accepted For Credit: CSU & UC
A chronologically-based survey of non-European art throughout the world from prehistory to the contemporary day. (GR)

ART-104A 2D Design
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This lecture/studio course introduces the beginning student to the techniques and concepts related to the organization of two-dimensional imagery. Studio work will include pen and ink, collage, painting, drawing, and bookmaking. Students have access to general art materials but need to purchase paper; students may want to supplement the available supplies with acrylic paint, brushes, pencils, and bookmaking materials. (GC) C-ID ARTS 100

ART-104B 3D Design
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Advisory: ART-104A
Accepted For Credit: CSU & UC
This course is for students who are interested in making objects that are three-dimensional, understanding the characteristics of a three-dimensional object and/or needing to understand the principles in building the illusion of a 3D object on a two-dimensional surface. Students are provided basic materials; however, they may want to supply additional materials for their individual projects. (GC) C-ID ARTS 101

ART-104C Color
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This lecture/studio course introduces the beginning student to various theories of color; hands-on experience in mixing and using colors; and practical observation in color relationships and effects. Basic supplies are provided but students need to supply paper. Students may want to supplement supplies with additional paints, markers, brushes, or pens. (GC) C-ID ARTS 270

ART-105A Glass Art and Design
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course is an introduction to fundamentals of art and design using glass as a medium. Studies include line, form, shape, color, and spatial relationships. The course covers glass cutting, lamination, copper foil stained glass, casting, and fusing techniques. (GC)

ART-105B Advanced Glass Fabrication
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-105A
Accepted For Credit: CSU
This course emphasizes further explorations in glass including moldmaking, casting, fusing, slumping, advanced lamination, and torchwork. (GC)

ART-105C Three-Dimensional Glass
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-105B
Accepted For Credit: CSU
This course emphasizes three-dimensional glass, using advanced techniques in kiln forming, casting, abrasive blasting, lamination, and coldworking. (GC)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Credit Acceptance</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART-106A</td>
<td>Beginning Descriptive Drawing</td>
<td>36.00</td>
<td>72.00</td>
<td>3.00</td>
<td></td>
<td>CSU &amp; UC</td>
<td>This is a basic drawing course designed to teach fundamental freehand drawing skills and techniques. Students develop skills in direct observation, composition, and methods of expressing ideas. (GC) C-ID ARTS 110</td>
</tr>
<tr>
<td>ART-106B</td>
<td>Intermediate Descriptive Drawing</td>
<td>36.00</td>
<td>72.00</td>
<td>3.00</td>
<td>ART-106A</td>
<td>CSU &amp; UC</td>
<td>This course involves a continuation of drawing concepts learned in ART-106A and introduces creative expression and color theory into the student's drawings. This intermediate drawing course emphasizes best practices so the student develops a sustainable studio practice using a variety of methods and materials. This course further develops the student's concepts acquired in Beginning Descriptive Drawing (ART-106A) and introduces color media such as colored pencil, pastel, pastel pencils, and Conte with more intense focus on personal context and color theory. (GC) C-ID ARTS 205</td>
</tr>
<tr>
<td>ART-107A</td>
<td>Life Drawing</td>
<td>36.00</td>
<td>72.00</td>
<td>3.00</td>
<td>ART-106A</td>
<td>CSU &amp; UC</td>
<td>Art 107A, Life Drawing, introduces students to drawing the human figure from observation using a wide variety of drawing media and techniques. Topics include an introduction to human anatomy and the historical and contemporary roles of figure drawing in the visual arts. Students in this course will learn both descriptive and interpretive approaches to drawing the figure. (GR) C-ID ARTS 200</td>
</tr>
<tr>
<td>ART-107B</td>
<td>Life Drawing</td>
<td>36.00</td>
<td>72.00</td>
<td>3.00</td>
<td>ART-107A</td>
<td>CSU &amp; UC</td>
<td>This course is a continuation of the content and skills taught in Life Drawing (ART-107A) but with an emphasis on portfolio development, the expressive interpretation in drawing the human figure, and the use of color. (GC)</td>
</tr>
<tr>
<td>ART-108</td>
<td>Perspective Drawing</td>
<td>36.00</td>
<td>72.00</td>
<td>3.00</td>
<td>ART-106A</td>
<td>CSU &amp; UC</td>
<td>This is a practical course in the techniques and principles of drawing in one and two point freehand and in constructed perspective with an emphasis on drawing interiors and furniture. (GC)</td>
</tr>
<tr>
<td>ART-109A</td>
<td>Beginning Graphic Design I (Letter Forms and Typography)</td>
<td>36.00</td>
<td>72.00</td>
<td>3.00</td>
<td>ART-104A</td>
<td>CSU &amp; UC</td>
<td>This course is an introduction to graphic design exploring visual communication through letterform. The course covers the history and fundamentals of typography with traditional and contemporary typefaces. Studio practice addresses the relationships between image, concept, form, and message. Students learn to articulate a design rational through weekly critiques and class discussions. (GC)</td>
</tr>
</tbody>
</table>
ART-110B  Beginning Graphic Design II  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: GA-109B  
Prerequisite: ART-109A or GA-109A  
Accepted For Credit: CSU  
This course is an introduction to graphic design exploring visual communication through letterform. The course covers the history and fundamentals of typography with traditional and contemporary typefaces. Studio practice addresses the relationships between image, concept, form, and message. Students learn to articulate a design rational through weekly critiques and class discussions. (GC)  

ART-110A  Advanced Graphic Design I  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: GA-110A  
Prerequisite: ART-109B or GA-109B  
Accepted For Credit: CSU  
This is an advanced level course in graphic design, building on the skills acquired in the beginning and intermediate level courses. The emphasis is on strengthening students' conceptual thinking skills and formal visual communication abilities. Topics include comprehensive projects in applied graphics and three-dimensional design. Students are encouraged to experiment, innovate, and develop methods of expression that reflect their artistic and cultural identities while effectively communicating with various audiences. (GC)  

ART-116B  Advanced Sculpture  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Prerequisite: ART-116A  
Accepted For Credit: CSU & UC  
This course is a continuation of ART-116A and will further explore the relationship between sculptural form and personal expression. Studio practice in advanced processes will be emphasized. (GC)  

ART-116A  Basic Sculpture  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Advisory: ART-104A or ART-106A  
Accepted For Credit: CSU & UC  
This is an introductory course designed to familiarize the student with contemporary forms of sculpture. Studio practice with process and material will be emphasized. (GC)  

ART-111A  Beginning Painting - Color and Composition  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU & UC  
This is an introductory course in studio painting practices designed to involve students in basic studio techniques and experiences with regard to color, composition, and subject matter. Oil paint will be the primary media. Introduction to other painting media is included in the instruction. (GC)  

ART-111B  Intermediate Painting - Color and Composition  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Prerequisite: ART-111A  
Accepted For Credit: CSU & UC  
This course continues the approaches studied in ART-111A with an emphasis on form, content, and individualized subject matter. Techniques in painting with a student choice of content are further explored. (GC)  

ART-117A  Museum and Gallery Techniques (Exhibition Production)  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
This course is an introduction to the operation and display of visual art within a gallery and museum space. The course involves a broad range of activities covering the care, handling, responsibility, and security of art shown in the College's Art Gallery. (GC)  

ART-117B  Museum and Gallery Techniques (Promotional Graphics)  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
This course continues the production and display techniques experienced in ART-117A. The emphasis will be to give students a working understanding of the methods of preparing materials for promoting and disseminating information important to the exhibition of art in the College's Art Gallery. (GC)  

ART-120A  Ceramic Studio Development and Maintenance I  
$4.00 hrs lab  
Units: 1.00  
Prerequisite: ART-121B  
Accepted For Credit: CSU  
This course is an introduction to the development and maintenance of a ceramic studio. Students will gain general and practical working experience in the acquisition, installation, and use of all necessary studio equipment and supplies by helping to maintain the Ohlone ceramic studio. The machinery includes kilns, wheels, pug mill, slab roller, extruder, spray booth, compressor, glaze materials, and ceramic library. (GC)
ART-120B  Ceramic Studio Development and Maintenance II  
$4.00 hrs lab  
Units: 1.00  
Prerequisite: ART-120A  
Accepted For Credit: CSU  
Students gain general and practical working experience in the acquisition, installation, and use of all necessary studio equipment and supplies by helping to maintain the Ohlone ceramic studio. In addition, students teach incoming students on the appropriate treatment and use of equipment. (GC)

ART-121A  Introductory Ceramics I  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course is an introduction to the fundamental techniques of hand-constructed and wheel-thrown clay forms. This course is a survey of clay and glaze materials and their ceramic applications. The course includes low, mid-range, and high firing temperatures of stoneware clay bodies. Students need to purchase clay; purchase of a simple clay tool kit is suggested. (GC)

ART-121B  Introductory Ceramics II  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Prerequisite: ART-121A  
Accepted For Credit: CSU & UC  
The emphasis of this course is on intermediate hand-building, wheel throwing, and glaze application. Students work on strong craftsmanship as well as the meaning of the piece. Students need to purchase clay; purchase of a simple clay tool kit is suggested. (GC)

ART-122A  Ceramic Throwing I  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Prerequisite: ART-122B  
Accepted For Credit: CSU & UC  
The emphasis for this course is on the designing, throwing, and glazing of more complex and difficult forms, including lidded containers, closed shapes, and thin-necked bottles. Students need to purchase clay; purchase of a simple clay tool kit is suggested. (GC)

ART-122B  Ceramic Throwing II  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Prerequisite: ART-122A  
Accepted For Credit: CSU & UC  
The emphasis for this course is on the designing, throwing, glazing, and firing of advanced thrown and hand-built forms. This process involves working on some ceramic projects for weeks at a time. There will be projects involving a combination of thrown and hand-built forms. This course also emphasizes appropriate glazes for particular forms. Students need to purchase clay; purchase of a simple clay tool kit is suggested. (GC)

ART-123  Ceramic Decorating  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Prerequisite: ART-121B  
Accepted For Credit: CSU & UC  
This course emphasizes all aspects of ceramic decoration including texture, carving, flattening, applied ornament, colored clays, engobes, brush making, resists, stencils, slip trailing, combing, commercial underglazes, raw oxides, and overglazes. Students need to purchase clay; purchase of a simple clay tool kit is suggested. (GC)

ART-124  Advanced Ceramic Decorating  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Prerequisite: ART-121B  
Accepted For Credit: CSU & UC  
The emphasis for this course is on designing and forming completed ceramic works. This course includes large outdoor ceramic shapes such as tiles, murals, and non-functional ceramic sculpture. Students need to purchase clay; purchase of a simple clay tool kit is suggested. (GC)

ART-127  Site Specific Socially Engaged Installation Art  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU & UC  
The major emphasis for this introductory lecture/studio class is site specific work using the principles of two and three-dimensional forms and the integration of history, theory, and criticism to understand what makes public art socially engaging. (GC)

ART-131  History of Photography  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course is a survey of photography as an historical and contemporary form of art and communication. Students develop appreciation for, and comprehension of, the issues, practices, and theories involved in visual communication as well as gain insights into the role of photography with regard to social, cultural, and political shifts and events from its inception in early 19th Century to the present day. (GC)

ART-133A  Photo I  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU & UC  
This studio and lecture course teaches the foundational processes and aesthetic considerations of both analog and digital photography while examining contemporary trends in photography. Students begin with traditional film cameras, provided by the college, and learn camera mechanics; film exposure; optics; design and composition; and darkroom skills required to produce quality continuous-tone silver black and white prints. Next a variety of techniques are introduced that bridge the analog and digital realms such as high-resolution negative scanning, outputting to various media from scanned or computer-manipulated digital files, and archival inkjet printing. A hands-on introduction to digital photography practices using DSLR cameras, provided by the college, completes the course progression. (GC)

ART-133B  Photo II  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Prerequisite: ART-133A  
Accepted For Credit: CSU & UC  
Having learned basic photographic processes and skills in the introductory course, students will shift their practice to using those processes and skills in the creation of original, unique artwork. Students will work on projects of their choice using what they deem to be the appropriate tools. In addition to presenting their photos in class, students will create both a physical artist's book and a website of their work. Topics include project conception and planning; image sequencing; book design using Adobe Lightroom and other tools; creating a one-of-a-kind artist's book; and authoring an artist statement. Cameras provided by the Ohlone Photo Program. (GC)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Prerequisite(s)</th>
<th>Advisory(s)</th>
<th>Cross-referenced Course</th>
<th>Acceptance For Credit</th>
<th>Specific Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART-133L</td>
<td>Photography Studio Lab</td>
<td>0.50</td>
<td>27.00</td>
<td></td>
<td>Required</td>
<td>ART-138B</td>
<td>GA-138B</td>
<td>CSU &amp; UC</td>
<td>This course is a lab component of all Photography studio courses in the Art Department. Students will work on various projects for the Photography courses in which they are actively enrolled. (CR)</td>
</tr>
<tr>
<td>ART-135A</td>
<td>Photo Lighting I</td>
<td>3.00</td>
<td>36.00</td>
<td>72.00</td>
<td>Prerequisite: ART-138A or GA-138A</td>
<td>Accepted For Credit: CSU &amp; UC</td>
<td>ART-138B, ART-139A, and/or ART-139B</td>
<td>CSU &amp; UC</td>
<td>Through demonstration and hands-on experience students explore the basic and technical use of ambient, tungsten, electronic flash, and strobe illumination as used in photography. Students will work with a variety of lighting equipment and accessories. (GC)</td>
</tr>
<tr>
<td>ART-138A</td>
<td>Photoshop I</td>
<td>3.00</td>
<td>27.00</td>
<td>81.00</td>
<td>Prerequisite: ART-138A or GA-138A</td>
<td>Accepted For Credit: CSU &amp; UC</td>
<td>GA-138A</td>
<td>CSU &amp; UC</td>
<td>This course is designed as an introduction to Adobe Photoshop for photographers, designers, and artists with little to no experience with the software. Students learn the basics of the Photoshop interface; the tools and processes for editing photographs; and methods for creating digitally-based images and text. Additional instruction and assignments introduce the fundamentals of photographic practice, graphic design, and color theory. Emphasis is placed on developing the skills and vocabulary for the assessment and analysis of photographs, designs, and other works of art. (GC)</td>
</tr>
<tr>
<td>ART-138B</td>
<td>Photoshop II</td>
<td>3.00</td>
<td>27.00</td>
<td>81.00</td>
<td>Prerequisite: ART-138A or GA-138A</td>
<td>Accepted For Credit: CSU &amp; UC</td>
<td>GA-138A</td>
<td>CSU &amp; UC</td>
<td>This course is designed for photographers, designers, and artists who wish to increase their working knowledge of the Adobe Photoshop software. Building from the skills developed in the Photoshop I course, students learn to customize the Photoshop interface; make use of advanced tools and processes for editing photographs; and develop more refined methods for creating digitally-based images and text. Additional instruction and assignments introduce the fundamentals of photographic practice, graphic design, and color theory. Emphasis is placed on developing the skills and vocabulary for the assessment and analysis of photographs, designs, and other works of art. Digital camera not required. (GC)</td>
</tr>
<tr>
<td>ART-139A</td>
<td>Beginning Digital Photography</td>
<td>3.00</td>
<td>18.00</td>
<td>108.00</td>
<td>Cross-referenced Course: GA-169A</td>
<td>Advisory: ART-138A</td>
<td>GA-169A</td>
<td>CSU &amp; UC</td>
<td>This course explores the photographer's creative process from several directions. Students undertake photographic projects designed to provide engagement with a variety of subject matter and ways of photographing; look at photographic work in online and local galleries and museums; consider current issues having to do with photographic technologies; discuss their photographs with other students in an effort to improve their creative processes. Technical instruction includes camera functions; resizing and saving digital files; and minor image modification. For intense technical instruction students should see ART-138A and ART-138B. (GC)</td>
</tr>
<tr>
<td>ART-139B</td>
<td>Intermediate Digital Photography</td>
<td>3.00</td>
<td>18.00</td>
<td>108.00</td>
<td>Cross-referenced Course: GA-169B</td>
<td>Prerequisite: ART-139A or GA-169A</td>
<td>Accepted For Credit: CSU &amp; UC</td>
<td>CSU &amp; UC</td>
<td>This course continues an exploration of the photographer’s creative process from several directions. Students undertake photographic projects designed to provide engagement with a variety of subject matter and ways of photographing; complete an extended photographic project of their choosing and receive guidance from the instructor and students; look at photographic work in online and local galleries and museums; consider current issues around photographic technologies; discuss their photographs with other students in an effort to improve their creative processes. Students formalize their individual projects as books or online galleries. Technical instruction includes camera functions, resizing and saving digital files, and minor image modification. For intense technical instruction see ART-138A and ART-138B. (GC)</td>
</tr>
<tr>
<td>ART-139C</td>
<td>Advanced Digital Photography</td>
<td>4.00</td>
<td>18.00</td>
<td>108.00</td>
<td>Cross-referenced Course: GA-169C</td>
<td>Prerequisite: ART-139B or GA-169B</td>
<td>Accepted For Credit: CSU</td>
<td>CSU</td>
<td>This course continues a series in digital photography to an advanced level, covering topics of importance to photography students planning to make photography a career. Topics include how to work in depth on a project involving public interaction; how to write an artist statement; how to establish a public presence as a photographer; how to market to potential clients; and how to write a statement of work (or job bid) for a potential client. (GC)</td>
</tr>
<tr>
<td>ART-140</td>
<td>Digital Video for the Web and DVD</td>
<td>4.00</td>
<td>54.00</td>
<td>54.00</td>
<td>Cross-referenced Course: MM-110</td>
<td>Accepted For Credit: CSU &amp; UC</td>
<td>MM-110</td>
<td>CSU &amp; UC</td>
<td>This course is a hands-on introduction to digital video to develop media production skills. The course combines equipment demonstrations, technical workshops, lectures on film theory, readings, discussion, and critiques to give students a fully rounded introduction to all aspects of digital video pre-production, production, and post-production. Topics include producing narrative and documentary style videos, camera proxemics, composition, editing, video file formats and compression, special effects, and producing videos for a variety of outputs. (GR)</td>
</tr>
</tbody>
</table>
ART-146  Beginning Photography/Graphic Arts  
Newspaper Staff  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Cross-referenced Course: JOUR-146  
Advisory: ART-106A or ART-133A  
Accepted For Credit: CSU  
Students serve as newspaper staff members to initiate, plan, and complete photographic or graphic assignments for publication in the college newspaper and/or magazine. Training emphasizes use of techniques and skills that communicate ideas effectively to a mass media audience. Photographers and artists have access to digital cameras, computers, scanners, and software for completion of assignments. Students are also introduced to legal and ethical responsibilities. Students are expected to produce one photo/graphic per issue. (GC)

ART-147  Advanced Photography/Graphic Arts Newspaper Staff  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Cross-referenced Course: JOUR-147  
Advisory: ART-106A or ART-133A  
Accepted For Credit: CSU  
Staff members initiate, plan, and complete photographic or graphic assignments for publication in the college newspaper and/or magazine. Training emphasizes use of techniques and skills that communicate ideas effectively to a mass media audience. Photographers and artists have access to digital cameras, computers, scanners, and software for completion of assignments. Students are also introduced to legal and ethical responsibilities. Students are responsible for specific areas, such as sports, and are expected to produce two photos or graphics per issue. (GC)

ART-148  Photography/Graphic Arts Newspaper Editor  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Cross-referenced Course: JOUR-148  
Advisory: ART-146, ART-147  
Accepted For Credit: CSU  
This course is for photo or graphic student editors who will initiate, plan, and complete photographic or graphic assignments for publication in the college newspaper and/or magazine. Training emphasizes use of techniques and skills that communicate ideas effectively to a mass media audience. Photographers and artists have access to digital cameras, computers, scanners, and software for completion of assignments. Students are also introduced to legal and ethical responsibilities. Students are responsible for specific areas, such as sports, and are expected to produce two photos or graphics per issue. (GC)

ART-150A  Interior Design Concepts  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: ID-150A  
Accepted For Credit: CSU  
In this introductory course students analyze interiors using basic design concepts. Principles and techniques used by professional interior designers are demonstrated. Case studies in problem solving with an emphasis on residential interiors are presented. (GC)

ART-150B  Interior Design  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ID-150B  
Prerequisite: ART-150A or ID-150A  
Accepted For Credit: CSU  
This course is a continuation of ART-150A and is designed for Interior Design majors. Interior design theories and methodologies are explored in-depth through a variety of increasingly complex “Real Life” case study projects that emphasize the design of public spaces. The course will help prepare students for professional practice. (GC)

ART-151  Visualization and Presentation  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ID-151  
Accepted For Credit: CSU  
This course familiarizes students with methods and materials used in the design industry to develop concepts and communicate ideas. Students will prepare projects for a design portfolio. (GC)

ART-153  History of Decorative Arts  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: ID-153  
Accepted For Credit: CSU & UC  
Students study furniture construction, styles, and periods in conjunction with the architecture and related decorative arts of each era from ancient times to the present. This course includes political, religious, and cultural histories which significantly influenced these arts. (GC)

ART-154  Contemporary Home Design  
36.00 hrs lecture  
Units: 2.00  
Cross-referenced Course: ID-154  
Accepted For Credit: CSU  
Students study the architectural history of home design and learn practical applications of information relating to design, construction methods, and economic practices. (GC)

ART-155A  Architectural Drafting for Interior Design  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ID-155A  
Advisory: Concurrent with ART-163, GA-163, or ID-163  
Accepted For Credit: CSU  
This course will introduce basic drafting techniques as related to architectural working drawings for interior design. Construction materials and procedures will be discussed. (GC)

ART-155B  CAD for Interior Design  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ID-155B  
Advisory: ART-155A or ID-155A  
Accepted For Credit: CSU  
This course focuses on the fundamentals of computer-aided drafting as related to interior design and architectural drawings. Understanding CAD concepts and using commands are emphasized. Drawing skills are learned and developed by applying these concepts to solve practical laboratory problems. (GC)
ART-155C Intermediate CAD for Interior Design
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Cross-referenced Course: ID-155C
Prerequisite: ART-155B or ID-155B
Accepted For Credit: CSU
This course is a continuation of ART-155B and focuses on developing computer-aided drafting skills as related to interior design and architectural drawings. Applying CAD concepts and practicing commands are emphasized. Drawing skills are refined by applying these concepts to practical laboratory problems. (GC)

ART-156 Architectural Modelmaking for Interior Design
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Cross-referenced Course: ID-156
Accepted For Credit: CSU
Scale models will be developed in this course for presenting and studying architectural interior spaces. A wide range of materials and processes will be explored. (GC)

ART-157 Professional Practice for Interior Design
54.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Cross-referenced Course: ID-157
This course introduces basic business practices for interior designers. The course includes an overview of career paths, business planning and organization, professional associations, marketing, sales, wholesale resource development, contractual obligations, and ethics. The course designed for people preparing to enter the field of interior design. (GC)

ART-158 Textiles
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Cross-referenced Course: ID-158
Accepted For Credit: CU & UC
This is a comprehensive course in the study of textiles as related to interior design. Fiber and fabric construction and characteristics are examined; textile choices are evaluated and analyzed for safety, functionality, and aesthetics; and the impacts of textiles on interior environments are considered. Students gain an empirical understanding of the nature of textiles though hands-on projects in the laboratory component. (GC)

ART-159A Applied Design: Residential Lighting
18.00 hrs lecture
Units: 1.00
Cross-referenced Course: ID-159A
Accepted For Credit: CSU
This course will present an overview of basic considerations necessary to plan, choose, and place lighting fixtures throughout a home. This helps define space, articulate atmosphere, direct attention, and facilitate activities. (GC)

ART-159B Applied Design: Color for the Home
18.00 hrs lecture
Units: 1.00
Cross-referenced Course: ID-159B
Accepted For Credit: CSU
This course will explore theoretical and experiential approaches to choosing color schemes for residences. (GC)

ART-160A Computer Graphics I
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Cross-referenced Course: GA-160A
Accepted For Credit: CSU & UC
This course is an introduction to creating computer-generated graphics. Students explore software tools and graphic design techniques for the production of computer-made imagery. The course emphasizes the development of graphics following creative principles and covers the principles of graphic design and the creation of graphics for commercial and artistic application. (GC)

ART-160B Computer Graphics II
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Cross-referenced Course: GA-160B
Accepted For Credit: CSU & UC
This course is a continuation of ART-160A and emphasizes intermediate and advanced skills needed in graphic design. Students complete projects of their choice that show advanced conceptual and visual communication skills and workmanship. (GC)

ART-161A Digital Graphics I
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Cross-referenced Course: GA-161A
Accepted For Credit: CSU
This course uses a combination of lectures and hands-on studio experience to introduce students to the creative possibilities of graphic computing. In addition to covering hardware (printers, scanners, drawing tablets) and software (Photoshop and Illustrator), this course emphasizes the visual-problem solving process. Students learn the conceptual and technical foundations of graphic design. The principles taught in this course assist students in the realization of their own ideas and the interpretation of diverse forms of visual communication. Each assignment focuses on a different skill and the results can be included in a professional portfolio for presentation and job searching. (GC)

ART-161B Digital Graphics II
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Cross-referenced Course: GA-161B
Accepted For Credit: CSU
This course is a continuation of ART-161A. The emphasis in this course is on developing intermediate and advanced skills needed to set up and operate a digital graphics work station and publish on the web. Students complete projects of their choice using complex graphics software, scanners, tablets, and printers. The course emphasis is on the continued development of a portfolio of computer images. (GC)

ART-163 Digital Arts Lab-Macintosh
27.00 hrs lab
Units: 0.50
Cross-referenced Course: GA-163, ID-163
This course is a lab component for all courses taught on the Macintosh and on drafting equipment in these areas: Art, Graphic Arts/Computer Graphics, Photography, and Interior Design. Students will produce digital graphic and drafting projects for art related classes. (CR)
Astronomy (ASTR)

Division: Science, Engineering, and Mathematics  
Academic Dean: Loretta Silverman  
Division Administrative Assistant: Irene Benavidez  
Location: Fremont campus, Room 1301L  
Phone number: 510-659-6191

This department offers a Special Projects course (ASTR-201). Please see page 156 of this catalog for more information regarding Special Projects courses.

ASTR-101A  General Astronomy of the Solar System  
54.00 hrs lecture  
Units: 3.00  
Advisory: MATH-151 and ASTR-102  
Accepted For Credit: CSU & UC  
This course provides students with an introduction to the history, principles, and methods of astronomy, specifically applied to our Sun, Moon, and the planets of our Solar System. (GR)

ASTR-101B  General Astronomy Beyond the Solar System  
54.00 hrs lecture  
Units: 3.00  
Advisory: ASTR-102, taken concurrently  
Accepted For Credit: CSU & UC  
This course is an introduction to the fundamental principles and dynamics of the astronomy beyond the Solar System. (GR)

ASTR-102  General Astronomy Lab  
54.00 hrs lab  
Units: 1.00  
Corequisite: ASTR-101A or ASTR-101B  
Advisory: MATH-151  
Accepted For Credit: CSU & UC  
This is an introductory lab course covering the methods and fundamentals of astronomy through inquiry and experiments. (GR)

Athletics (ATHL)

Division: Kinesiology, Athletics, and Arts  
Academic Dean: Christopher Warden  
Division Administrative Assistant: Maria Rocha  
Location: Fremont campus, Room 9303  
Phone number: 510-659-6044

ATHL-101A4  Functional Sports Performance  
108.00 hrs lab  
Units: 2.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is for incoming student-athletes to perform and develop their skills as it relates to their specific sport. This course will also provide an opportunity for specific coaches to evaluate individual players and to better identify deficiencies prior to the start of the season. Repeatable = 3 times (GC)

ATHL-110A3  Sport Specific Training  
54.00 hrs lab  
Units: 1.00  
Advisory: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is designed to improve neuromuscular coordination, strength maintenance, speed work, and agility related to sport-specific movements through weight training activities and drill progression. Course is designed for intercollegiate-level athletes looking for a positive team experience and for those that want to compete at a baccalaureate institution. Repeatable = 3 times (GC)

ATHL-120A2  Cross Training for the Athlete  
36.00 hrs lab  
Units: 0.50  
Advisory: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course allows for athletes to continue their strength and conditioning requirement while exploring alternate methods of exercise. There will be opportunities to develop new strength training techniques, focus on specific systems of the body (such as the cardiorespiratory and muscular systems), and achieve a sense of body readiness as they pertain to an upcoming competitive sports season. Repeatable = 3 times (GC)

ATHL-120A3  Cross Training for the Athlete  
54.00 hrs lab  
Units: 1.00  
Advisory: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course allows for athletes to continue their strength and conditioning requirement while exploring alternate methods of exercise. There will be opportunity to develop new strength training techniques, focus on specific systems of the body such as the cardiorespiratory system, and achieve a sense of body readiness when it pertains to an upcoming sports season. Repeatable = 3 times (GC)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Accepted For Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATHL-220</td>
<td>Intercollegiate Volleyball, Women</td>
<td>3.00</td>
<td>Medical clearance within the last year</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td></td>
<td>This course is designed for student-athletes to participate in intercollegiate women's volleyball. Students will refine volleyball specific skills; improve their strength and conditioning; and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 3 times (GC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Accepted For Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATHL-222</td>
<td>Intercollegiate Soccer, Women</td>
<td>3.00</td>
<td>Medical clearance within the last year</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td></td>
<td>This course is designed for student-athletes to participate in intercollegiate women's soccer. Students will refine sports specific skills; improve their strength and conditioning; and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 3 times (GC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Accepted For Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATHL-223</td>
<td>Intercollegiate Soccer, Men</td>
<td>3.00</td>
<td>Medical clearance within the last year</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td></td>
<td>This course is designed for student-athletes to participate in intercollegiate men's soccer. Students will refine sports specific skills; improve their strength and conditioning; and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 3 times (GC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Accepted For Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATHL-224</td>
<td>Intercollegiate Water Polo, Women</td>
<td>3.00</td>
<td>Medical clearance within the last year</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td></td>
<td>This course is designed for student-athletes to participate in intercollegiate women's water polo. Students will refine sports sport-specific skills; improve their strength and conditioning; and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 3 times (GC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Accepted For Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATHL-225</td>
<td>Intercollegiate Water Polo, Men</td>
<td>3.00</td>
<td>Medical clearance within the last year</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td></td>
<td>This course is designed for student-athletes to participate in intercollegiate men's water polo. Students will refine sports specific skills; improve their strength and conditioning; and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 3 times (GC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Accepted For Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATHL-226A</td>
<td>Intercollegiate Basketball I, Women</td>
<td>2.00</td>
<td>Medical clearance within the last year</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td></td>
<td>This course is designed for student-athletes to participate in intercollegiate women's basketball. Students will refine sports specific skills; improve their strength and conditioning; and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 3 times (GC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Accepted For Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATHL-226B</td>
<td>Intercollegiate Basketball II, Women</td>
<td>1.00</td>
<td>Medical clearance within the last year</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td></td>
<td>This course is designed for student-athletes to participate in intercollegiate women's basketball. Students will continue to refine sports specific skills and develop team concepts. There will be a focus on team success through the conference and post conference competition season. Repeatable = 3 times (GC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Accepted For Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATHL-227A</td>
<td>Intercollegiate Basketball I, Men</td>
<td>2.00</td>
<td>Medical clearance within the last year</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td></td>
<td>This course is designed for student-athletes to participate in intercollegiate men's basketball. Students will refine sports specific skills; improve their strength and conditioning; and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 3 times (GC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Accepted For Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATHL-227B</td>
<td>Intercollegiate Basketball II, Men</td>
<td>1.00</td>
<td>Medical clearance within the last year</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td></td>
<td>This course is designed for student-athletes to participate in intercollegiate men's basketball. Students will continue to refine sports specific skills and develop team concepts. There will be a focus on team success through the conference and post conference competition season. Repeatable = 3 times (GC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Accepted For Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATHL-228</td>
<td>Intercollegiate Swimming, Women</td>
<td>3.00</td>
<td>Medical clearance within the last year</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td></td>
<td>This course is designed for student-athletes to participate in intercollegiate women's swimming. Students will refine sports specific skills; improve their strength and conditioning; and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 3 times (GC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Accepted For Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATHL-229</td>
<td>Intercollegiate Swimming, Men</td>
<td>3.00</td>
<td>Medical clearance within the last year</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td></td>
<td>This course is designed for student-athletes to participate in intercollegiate men's swimming. Students will refine sports specific skills; improve their strength and conditioning; and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 3 times (GC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Accepted For Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATHL-230</td>
<td>Intercollegiate Softball, Women</td>
<td>3.00</td>
<td>Medical clearance within the last year</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td></td>
<td>This course is designed for student-athletes to participate in intercollegiate women's softball. Students will refine sports specific skills; improve their strength and conditioning; and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 3 times (GC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ATHL-231 Intercollegiate Baseball, Men
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Advisory: ATHL-251
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate men’s baseball. Students will refine sports specific skills; improve their strength and conditioning; and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 3 times (GC)

ATHL-240 Intercollegiate Volleyball Prep, Women
108.00 hrs lab
Units: 2.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed to prepare intercollegiate athletes for the rigor and intensity of the championship season. Areas of emphasis will be on total body sports specific conditioning as well as skills and strategies of the sport. Repeatable = 3 times (GC)

ATHL-242 Intercollegiate Soccer Prep, Women
108.00 hrs lab
Units: 2.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed to prepare intercollegiate athletes for the rigor and intensity of the championship season. Areas of emphasis will be on total body sports specific conditioning as well as skills and strategies of the sport. Repeatable = 3 times (GC)

ATHL-243 Intercollegiate Soccer Prep, Men
108.00 hrs lab
Units: 2.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed to prepare intercollegiate athletes for the rigor and intensity of the championship season. Areas of emphasis will be on total body sports specific conditioning as well as skills and strategies of the sport. Repeatable = 3 times (GC)

ATHL-244 Intercollegiate Water Polo Prep, Women
108.00 hrs lab
Units: 2.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed to prepare intercollegiate athletes for the rigor and intensity of the championship season. Areas of emphasis will be on total body sports specific conditioning as well as skills and strategies of the sport. Repeatable = 3 times (GC)

ATHL-246 Intercollegiate Basketball Prep, Women
36.00 hrs lab
Units: 0.50
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed to prepare intercollegiate athletes for the rigor and intensity of the championship season. Areas of emphasis will be on total body sports specific conditioning as well as skills and strategies of the sport. Repeatable = 3 times (GC)

ATHL-247 Intercollegiate Basketball Prep, Men
36.00 hrs lab
Units: 0.50
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed to prepare intercollegiate athletes for the rigor and intensity of the championship season. Areas of emphasis will be on total body sports specific conditioning as well as skills and strategies of the sport. Repeatable = 3 times (GC)

ATHL-250 Intercollegiate Softball Prep, Women
108.00 hrs lab
Units: 2.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed to prepare intercollegiate athletes for the rigor and intensity of the championship season. Areas of emphasis will be on total body sports specific conditioning as well as skills and strategies of the sport. Repeatable = 3 times (GC)

ATHL-251 Intercollegiate Baseball Prep, Men
108.00 hrs lab
Units: 2.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed to prepare intercollegiate athletes for the rigor and intensity of the championship season. Areas of emphasis will be on total body sports specific conditioning as well as skills and strategies of the sport. Repeatable = 3 times (GC)
This department offers Special Projects courses (BIOL-201, BIOL-202, and BIOL-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

**BIOL-101A**  Principles of Biology - Molecular and Cellular Biology

- **Units:** 5.00
- **Prerequisite:** CHEM-101A
- **Accepted For Credit:** CSU & UC

This course is the first of a two-semester course that provides an introduction to biological principles for biology and health professions majors. Topics emphasized include biochemistry; cell structure and function; metabolism; cellular reproduction; Mendelian genetics; molecular genetics; genetics of prokaryotes and viruses; biotechnological techniques; and evolution. Students taking this course should also plan to take Biology 101B. (GR) C-ID BIOL 190; BIOL-101A + BIOL-101B = C-ID BIOL 135S

**BIOL-101B**  Principles of Biology - Organisms and Systems

- **Units:** 5.00
- **Prerequisite:** BIOL-101A
- **Accepted For Credit:** CSU & UC

This course is an introduction to biological principles for biology and health professions majors. Topics emphasized include principles of evolution and systematics; evolution and diversity of major prokaryote and eukaryote taxa; anatomy and physiology of animals; plant structure and function; and ecology. The laboratory section of this course requires animal dissections and the preparation of an insect collection. This course completes the lower division core curriculum in biology for biology and pre-health professions majors. Students are required to purchase a dissection kit, lab coat, and insect display box. (GR) C-ID BIOL 140; BIOL-101A + BIOL-101B = C-ID BIOL 135S

**BIOL-102**  Introduction to Biology for Health Sciences

- **Units:** 4.00
- **Advisory:** Eligible for ENGL-151B and ENGL-163
- **Accepted For Credit:** CSU & UC

This course is an introduction to biology designed to prepare healthcare-oriented students for more advanced biology courses like anatomy and physiology and microbiology. Foundational biological concepts will be covered including the chemistry of living things; cell structure and function; genetics; animal physiology; and evolution. (GR)
BIOL-109  Biology of Sexual Reproduction
$4.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course presents anatomy, physiology, and behavioral aspects of human sexual reproduction with emphasis on functional mechanisms. (GC)

BIOL-110  Biology of Human Cancer
$4.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course aims to provide students with fundamental background knowledge about cancer biology. The course starts out seeking answers to the most commonly asked questions about cancer. This is followed by presentation of basic biological concepts as it relates to cancer. Major human cancers are discussed with regards to causative factors, mechanisms, and management. The course also provides students with basic knowledge on cancer pathology and metastasis. (GR)

BIOL-114  Introduction to Plant Biology
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Cross-referenced Course: BIOT-114
Accepted For Credit: CSU & UC
This course provides a basic introduction to plant biology and careers related to plant biology and biotechnology. Topics include plant diversity, structure, growth, development, genetics, molecular biology, genetic engineering, and culture techniques. (GR)

BIOL-130  Essential Biology
$4.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course is an introduction to biological principles for non-science majors. Students will explore the essential biology behind the news, the doctor's office, and the living world around us. Fundamental biological principles are covered including cell structure and function, ecology, evolution, genetics, and human anatomy and physiology. (GC)

BIOL-141  Marine Biology
$4.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course covers basic concepts of marine ecosystems including oceanographic principles, ecology, and the diversity of marine organisms and habitats. (GC)

BIOL-142  Environmental Biology
$4.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Cross-referenced Course: ENVS-142
Accepted For Credit: CSU & UC
This lecture and lab course is an introduction to the biological sciences focusing on diversity; organismal interactions with their environment (ecology); the effects humans have had on biological diversity and ecosystems; and efforts to protect species and their habitats (conservation). No previous biology experience required. (GR)

---

Biotechnology (BIOT)
Division: Science, Engineering, and Mathematics
Academic Dean: Loretta Silverman
Division Administrative Assistant: Irene Benavidez
Location: Fremont campus, Room 1301L
Phone number: 510-659-6191

This department offers Special Projects courses (BIOT-201, BIOT-202, and BIOT-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

BIOT-100  Biotechnology and Society
$4.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course is an introduction to the scientific principles and techniques of molecular biology and biotechnology, including recombinant DNA technology and gene cloning, recombinant protein design, and analysis of biomolecules. Discussion of technical, ethical, and safety concerns presented by medical, agricultural, pharmaceutical, and forensic applications of biotechnology. (GR)

BIOT-101  Biotechnology Research Projects
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Prerequisite: BIOT-105 or BIOL-101A
Accepted For Credit: CSU & UC
This course introduces students to scientific research in the field of biotechnology. The course includes literature reviews, research proposal preparation, experimental design, hands-on experimentation, data interpretation, analysis, and presentation of written and oral reports. Students maintain a professional laboratory notebook, and practice the behavior and skills required in a modern biotechnology lab. (GR)
BIOT-103  LAB Biotech Summer Bridge
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Prerequisite: This course is open only to Learning Alliance for Bioscience program participants from partner high schools. Students must have successfully completed an articulated LAB biotechnology or biochemistry course prior to participating in this Bridge course. The Learning Alliance for Bioscience (LAB) Biotech Summer Bridge course provides hands-on experience in the biotechnology laboratory for students who have participated in LAB classes at their high school. Students will perform experiments that involve such techniques as bacterial cell culture, DNA extraction and analysis, PCR, gene cloning, protein extraction, and purification. The theme of the course changes each summer, with the focus on such topics as cell culture, drug discovery, biofuels, environmental biotechnology, etc. (CR)

BIOT-104A  HPLC
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
This course gives students an introduction to High Pressure Liquid Chromatography, a technique used to separate and analyze chemical mixtures. The course is designed for beginners who want exposure to the technique at a basic level; this course does not provide in-depth training. The lectures present the fundamental principles. The lab provides the students with a hands-on experience. Key topics include basic HPLC instrumentation, detectors, including UV/vis, column selection, and other factors which influence reliability. (GR)

BIOT-105  Introduction to Cell and Molecular Biology
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Accepted For Credit: CSU & UC
This course introduces basic laboratory research methods (measuring volume and mass, preparing solutions, using micropipettes, operating a spectrophotometer) and introductory concepts of biology (chemistry of life, cell structure and function, genetics) to students who are interested in biotechnology, yet may have no science background. Students are introduced to the scientific method; they use computers for data analysis and to produce graphs; they maintain a professional-quality laboratory notebook; and they become familiar with appropriate safe behaviors and basic skills required in a modern biological laboratory. (GR)

BIOT-110A  DNA and Protein Purification and Analysis
27.00 hrs lecture, 90.00 hrs lab
Units: 3.00
Prerequisite: BIOT-105 or BIOL-101A
Accepted For Credit: CSU
DNA and Protein Purification and Analysis is a continuation of laboratory skills in molecular biology introduced in BIOT-105. The course focuses on recombinant DNA techniques (DNA restriction, cloning, transformation, electrophoresis, PCR, Sanger sequencing CPE), and purification and analysis of proteins (SDS-PAGE, western blotting, chromatography using FPLC). (GR)

BIOT-111A  Genomic and cDNA Library Construction and Analysis
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: BIOL-101A or BIOT-110A
Accepted For Credit: CSU
This course uses lecture and lab approaches to teach students the theory and practice of lab techniques used to construct, search, and analyze simple genomic and cDNA libraries. Students learn library construction techniques, replica plating, and the use of non-radioactive oligonucleotide probes for searching libraries to find DNA sequences of interest. Additionally, students learn DNA modification techniques and how to construct a simple restriction map from electrophoresis gel data. Students are required to purchase a lab coat, goggles, and examination gloves for use in this course. (GR)

BIOT-111B  PCR Primer Design and Optimization and Reverse Transcription PCR
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: BIOT-110A
Accepted For Credit: CSU
This course combines lecture and lab approaches to teaching students advanced topics in PCR, including BLAST searches and DNA alignment protocols for locating minimal variable sequences to use in constructing PCR primers, principles of primer design, and optimization techniques for PCR reactions. Students will design primers; optimize salt and temperature parameters for PCR; and perform RT-PCR. (GR)

BIOT-112  Introduction to Bioinformatics
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
This course is an introduction to computational techniques to address current biological problems. The course focuses on DNA, RNA, and protein sequence analysis. Students predict protein structure, analyze data from biological databases, apply genome annotation methods, build phylogenetic trees from sequence data, and predict gene function based on molecular data. (GC)

BIOT-113  GMP/GLP and Writing SOPs
27.00 hrs lecture
Units: 1.50
Accepted For Credit: CSU
This course gives an introduction to the concepts of Good Manufacturing Practice (GMP) and Good Laboratory Practice (GLP), and their applications in the biotechnological manufacturing of therapeutic products. The course will cover the concepts of GMP and GLP; the history of GMP/GLP; federal and international regulation for GMP/GLP; and how GMP/GLP are being applied in a bio-manufacturing facility. Writing of Standard Operating Procedures (SOPs) is included as part of the GMP curriculum. Students will learn to read, review, and write an SOP. (GR)

BIOT-114  Introduction to Plant Biology
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Cross-referenced Course: BIOL-114
Accepted For Credit: CSU & UC
This course provides a basic introduction to plant biology and careers related to plant biology and biotechnology. Topics include plant diversity, structure, growth, development, genetics, molecular biology, genetic engineering, and culture techniques. (GR)
BIOT-115A  Mammalian Cell Culture Techniques  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Prerequisite: BIOT-105 or BIOL-101A  
Accepted For Credit: CSU  
Through a series of lectures and hands-on laboratory procedures, this course introduces mammalian cell culture methods, including sterile technique; media preparation; quantification and passage of adherent and suspension cell lines; and the establishment of secondary cell lines. This course also provides students with the skills and concepts needed to work in today’s biotechnology industry. Successful students qualify to work as technicians in cell culture, manufacturing, and quality control. (GR)

BIOT-115B  Bioreactor Cell Culture Techniques  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Prerequisite: BIOT-115A  
Accepted For Credit: CSU  
This course introduces animal cell culture methods, including use of a bioreactor. Through a series of lectures and hands-on exercises, students learn the techniques and concepts needed to work in cell culture and biomanufacturing. (GR)

BIOT-117  Immunology  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Prerequisite: BIOT-105 or BIOL-101A  
Accepted For Credit: CSU  
This course is an introductory course for students interested in immunology and the immunological technology relevant to biotechnology. Topics covered include protein chemistry relating to immunology, the lymphatic system, cellular and humoral immunity, immunoglobulins, antibody production, monoclonal antibodies, autoimmune diseases, blood-based diagnostics and testing, ELISA, immunoblot, western blot, and affinity chromatography. (GR)

BIOT-118  Biotechnology Operations  
27.00 hrs lecture, 90.00 hrs lab  
Units: 3.00  
Prerequisite: BIOT-105  
Advisory: BIOT-113  
Accepted For Credit: CSU  
This course will develop foundational knowledge of the key functions within biotechnology operations: project management, supply chain management, product development, regulatory affairs, manufacturing, quality assurance, and quality control. The roles and responsibilities of these functions in the development, manufacturing, and quality assurance of therapeutic products manufactured using biotechnology processes will be explored. The course will provide extensive hands-on experience in the development and manufacturing of products for use by customers. Emphasis of the course will be on the development, manufacturing, and quality control of products according to Good Manufacturing Practice. (GR)

BIOT-119  Clean Room Operations  
4.50 hrs lecture, 13.50 hrs lab  
Units: 0.50  
Prerequisite: BIOT-105 or BIOL-101A  
Accepted For Credit: CSU  
This course provides background and training for clean room operations in biotechnology. This course discusses clean room classifications, regulations, and procedures. Laboratory exercises simulate working conditions in clean room operations. (GR)

BIOT-121  Biotechnology Careers  
18.00 hrs lecture  
Units: 1.00  
Advisory: Eligible for ENGL-101A and MATH-151  
Accepted For Credit: CSU  
This course is designed to offer an in-depth view of careers in biotechnology. Students will meet program graduates and professionals in various biotechnology positions, and discuss the range of career options available and educational training required for each career. Students will practice resume writing, oral presentations, and interview skills. (GR)

BIOT-124  Quality Improvement Associate Certification Preparation  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
This course introduces the basics of quality assurance in industry. This course prepares students to take and pass the Certified Quality Improvement Associate (CQIA) examination given by the American Society of Quality (ASQ). (GR)

Broadcasting (BRDC)  
Division: Language, Communication, and Academic Success  
Academic Dean: Mark Lieu  
Division Administrative Assistant: Dana Pope  
Location: Fremont campus, Room 3420K  
Phone number: 510-659-6173  
This department offers Special Projects courses (BRDC-201, BRDC-202, and BRDC-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

BRDC-120  Introduction to Electronic Media  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
This course is an introduction to electronic media, including traditional media such as television, radio, Internet, and film, along with emerging content delivery systems. The history and evolution, economics, and content of electronic media are studied. Electronic media’s social, political, regulatory, ethical, and occupational impact are also examined. (GC)

BRDC-123A  Radio Operations I  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
This course is an introduction to the technical operation of a radio broadcast facility. Applied concepts include preparing and producing material for broadcast; gathering and delivering local news on the air; operating KOHL Radio by FCC standards; and creating an effective audition tape. (GR)
BRDC-123B  Radio Operations II  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Prerequisite: BRDC-123A  
Accepted For Credit: CSU  
This course allows students to refine basic skills introduced in BRDC-123A. Advanced digital and analog production techniques are introduced. Additional areas of concentration include management and operations software systems, aircheck analysis, market overviews, and creating an effective employment package. (GR)

BRDC-124  Broadcast Internships  
180.00 hrs lab  
Units: 3.00  
Prerequisite: BRDC-123A and BRDC-124  
Accepted For Credit: CSU  
This course is for students who will intern at Bay Area broadcast stations, learning various aspects of the broadcasting business. (GR)

BRDC-124B  Broadcast Internships II  
180.00 hrs lab  
Units: 3.00  
Prerequisite: BRDC-123A and BRDC-124  
Accepted For Credit: CSU  
This course is for students who will intern at Bay Area broadcast stations or related electronic media outlets learning various aspects of the broadcasting business. (GR)

BRDC-127A  Radio Broadcast Lab  
$4.00 hrs lab  
Units: 1.00  
Prerequisite: BRDC-123B  
Accepted For Credit: CSU  
This course focuses on laboratory practice utilizing knowledge and techniques gained in BRDC-123A. KOHL Radio serves as the operational lab. (GR)

BRDC-127B  Radio Broadcast Lab  
$4.00 hrs lab  
Units: 1.00  
Prerequisite: BRDC-123B  
Accepted For Credit: CSU  
This course builds upon knowledge and techniques gained in BRDC-123A, BRDC-123B, and BRDC-127A. KOHL Radio serves as the operational lab. (GR)

BRDC-127C  Radio Broadcast Lab  
$4.00 hrs lab  
Units: 1.00  
Prerequisite: BRDC-123B  
Accepted For Credit: CSU  
This course builds upon knowledge and techniques gained in BRDC-127B with emphasis on advanced content and on-air listener interaction. KOHL Radio serves as the operational lab. (GR)

BRDC-127D  Radio Broadcast Lab  
$4.00 hrs lab  
Units: 1.00  
Prerequisite: BRDC-123B  
Accepted For Credit: CSU  
This course builds upon knowledge and techniques gained in BRDC-127C with emphasis on live, on location broadcast situations. KOHL Radio serves as the operational lab. (GR)

BRDC-128  Radio Programming and Marketing  
36.00 hrs lecture  
Units: 2.00  
Accepted For Credit: CSU  
This course provides an overview of radio programming methods, strategies, and promotion and evaluation techniques; and outlines the responsibilities of the professional radio program director. (GC)

BRDC-129  Digital Radio Studio Systems  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Advisory: BRDC-128  
Accepted For Credit: CSU  
Students taking this course are introduced to advanced operational techniques of digital radio studio systems. Lab assignments are completed in Ohlone’s KOHL studios using the various digital studio systems, including RCS Master Control platform, Vox Pro Air Studio record/mixing/playback platform, and Adobe Audition Production Studio record/mixing/playback platform. Students will need to purchase or bring a flash drive (8 MB minimum) and a pair of closed ear headphones. (GC)

BRDC-130  Broadcast Announcing  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
This course concentrates on projection of personality, voice control, pronunciation, and related skills necessary for communication of ideas and information via broadcast. Students learn important microphone techniques and put them to use under simulated broadcast circumstances. (GR)

BRDC-131  Audio Production  
$4.00 hrs lecture, 18.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
This course is an introduction to the theory and practice of audio production for radio, television, film, and digital recording applications. Students will learn the fundamentals of sound design, aesthetics, microphone use, editing, mixing, and mastering audio. Upon completion, students will have a basic knowledge of applied audio concepts, production workflow, equipment functions, and audio editing software. (GR)

BRDC-132  Studio Recording  
$4.00 hrs lecture, 18.00 hrs lab  
Units: 3.00  
Cross-referenced Course: MUS-113  
Advisory: MUS-112A  
Accepted For Credit: CSU  
This course is an introduction to the recording studio that follows the path of audio signals through the microphone, preamp, signal processors, digital audio workstation (DAW), and monitoring stations. Course topics include various types of microphones, the functions of virtual mixing boards, the characteristics of plug-in signal processors, and recording techniques. This course culminates in the production of a finished, master recording audio file. (GC)

BRDC-134  Video Editing for Film, TV, and Electronic Media  
36.00 hrs lecture, $4.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
Editing video for film, TV, and electronic media. This course covers the basics of editing video to create a short film, edit a trailer, and create a commercial. Students develop the ability to upload video, create a timeline, and assemble video and audio clips into story form. (GC)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture</th>
<th>Lab</th>
<th>Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRDC-135</td>
<td>Advanced Video Editing and Post-Production Recording</td>
<td>3.00</td>
<td>36.00</td>
<td>54.00</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>Students learn advanced video and audio editing techniques</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>used in commercial film and video production, including</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>color correction, grading, ADR (Advanced Dialogue Replacement)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>and Foley work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRDC-136</td>
<td>Digital Video and Lighting</td>
<td>3.00</td>
<td>36.00</td>
<td>54.00</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>Students learn to shoot professional-quality video and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>develop skills in visual storytelling for broadcast, film,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>and electronic media as well as using 3-point lighting and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>recording audio using shotgun and hand mikes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRDC-137</td>
<td>Video Field Production</td>
<td>3.00</td>
<td>36.00</td>
<td>54.00</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>Students develop advanced broadcast production skills in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>lighting, video, and sound recording. Students cover college</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>athletic contests and other events live or recorded and edited</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>into highlights.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRDC-141</td>
<td>Live TV News</td>
<td>3.00</td>
<td>36.00</td>
<td>54.00</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>Students write, report, anchor, shoot, and edit a weekly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>newscast, broadcast live on local cable TV and the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRDC-142</td>
<td>Live TV Studio Production</td>
<td>3.00</td>
<td>36.00</td>
<td>54.00</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>Students find feature stories; gather pictures and interviews;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>and prepare the story for air on a TV program that is</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>broadcast live on local cable and the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRDC-143</td>
<td>Writing for Media</td>
<td>3.00</td>
<td>36.00</td>
<td>54.00</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>This is a beginning course in writing and storytelling for</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>film, television, and electronic media. This course teaches</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>introductory skills required to work in these industries.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRDC-145</td>
<td>Online Reporting</td>
<td>3.00</td>
<td>45.00</td>
<td>27.00</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>An introductory class in writing and gathering video for</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>the Internet. How to build an Internet audience, and the</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>techniques for preparing and putting together content for</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a website or webcast. (GC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRDC-149</td>
<td>Advanced TV Studio Production</td>
<td>3.00</td>
<td>36.00</td>
<td>54.00</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>Students interested in broadcasting studio production learn</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>studio lighting technique, operate studio cameras, and create</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>graphics for television and live events such as eSports.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRDC-150</td>
<td>Introductory Film and Video Production</td>
<td>3.00</td>
<td>36.00</td>
<td>54.00</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>Students will research, write, and direct a short documentary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>working in groups and individually. Students gather</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>information using the Internet and various social media</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>platforms. Students will need to bring or purchase a 32 GB</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD card.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRDC-151</td>
<td>Introduction to Documentary Filmmaking</td>
<td>3.00</td>
<td>54.00</td>
<td>18.00</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>Students will research, write, and direct a short documentary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>working in groups and individually. Students gather</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>information using the Internet and various social media</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>platforms. Students will need to bring or purchase a 32 GB</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD card.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRDC-152</td>
<td>Advanced Film and Video Production</td>
<td>3.00</td>
<td>45.00</td>
<td>27.00</td>
<td>CSU</td>
</tr>
<tr>
<td>BRDC-155</td>
<td>Mass Media and Society</td>
<td>3.00</td>
<td>54.00</td>
<td></td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td>BRDC-160</td>
<td>Internship - Film, Television, and Electronic Media</td>
<td>3.00</td>
<td>162.00</td>
<td></td>
<td>CSU</td>
</tr>
</tbody>
</table>

**BRDC-149**
This is an advanced course for students interested in a career in broadcast television or television news. Students develop the ability to supervise pre-production and direct a live broadcast. (GC)

**BRDC-150**
Introduction to television and film production. Students learn composition, portable lighting, camera operation, and audio recording. This course focuses on the aesthetics and basics of scripting, producing, directing on location, and post-production. (GR)

**BRDC-151**
This advanced course in film and video production techniques focuses on lighting design, cinematography, casting, and managing a production. Students will need a 64 GB SD video card or equivalent. (GC)

**BRDC-152**
This advanced course in film and video production techniques focuses on lighting design, cinematography, casting, and managing a production. Students will need a 64 GB SD video card or equivalent. (GC)

**BRDC-155**
Mass Media and Society

**BRDC-160**
Internship - Film, Television, and Electronic Media

We swim in an ocean of media. Our thoughts, beliefs, life choices, jobs, government, and shopping decisions are all influenced by the media. Most of us complain about it, but we wouldn’t turn the media off, even if we could. Yet we don’t know much about it. Who decides what messages get sent? What do the senders want? How do we process the messages? How does the technology work? Your media exposure will continue for the rest of your life. This course aims to make you a more informed, critical consumer. (GR)
Business Administration (BA)

Division: Business
Executive Dean: Andrew LaManque
Location: Newark campus, Room NC1220
Phone number: 510-742-2301

This department offers Special Projects courses (BA-201, BA-202, and BA-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

**BA-101A Financial Accounting**
90.00 hrs lecture  
Units: 5.00  
Advisory: ENGL-151B and MATH-151  
Accepted For Credit: CSU & UC  
This course introduces accounting theory, procedures, and practices relating to financial accounting. (GR) C-ID ACCT 110

**BA-101B Managerial Accounting**
90.00 hrs lecture  
Units: 5.00  
Prerequisite: BA-101A  
Accepted For Credit: CSU & UC  
This course is an introduction to managerial accounting, including the analysis and interpretation of accounting data to aid management. (GR) C-ID ACCT 120

**BA-102A Principles of Economics-Macroeconomics**
54.00 hrs lecture  
Units: 3.00  
Prerequisite: MATH-152 or MATH-153  
Advisory: ENGL-151B and ENGL-163  
Accepted For Credit: CSU  
This course is an introduction to macroeconomics. The topics explored include supply, demand, government spending, taxation, business cycles, fiscal policy, monetary policy, money and banking system, inflation, unemployment, national income, and international economics. (GR) C-ID ECON 201

**BA-102B Principles of Economics-Microeconomics**
54.00 hrs lecture  
Units: 3.00  
Prerequisite: MATH-151  
Accepted For Credit: CSU & UC  
This course is an introduction to microeconomics. The topics explored include demand, supply, market structure, pricing policies, labor market, elasticity and its application, public goods, common resources, and environmental policy. (GR) C-ID ECON 202

**BA-109B Computerized Accounting for Small Business**
22.50 hrs lecture, 13.50 hrs lab  
Units: 1.50  
Advisory: BA-101A  
This course is designed to meet the accounting needs of a small business. A widely-used software package (such as QuickBooks) will be presented. (GC)

**BA-115 Career Communication**
4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: COMM-125  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU  
Students will develop vital communication skills for global and diverse professional environments including presentational skills, interviewing, interpersonal communication, leadership skills, and small group communication. (GR)

**BA-116 Business English and Communication**
72.00 hrs lecture  
Units: 4.00  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU  
This course reviews the fundamentals of English grammar, punctuation, and sentence structure from a business approach. Writing skills for clear and effective business communication are developed through letters and reports. Written, verbal, nonverbal, cross-cultural, and cross-gender communication are explored. (GC)

**BA-121A Developing Your Business Plan**
9.00 hrs lecture  
Units: 0.50  
This is a course designed for students considering starting their own businesses. All major elements of a business plan will be covered, including financial statements, marketing, and competitive strategies. (GC)

**BA-121B Legal Aspects of Small Business**
9.00 hrs lecture  
Units: 0.50  
This course is designed for students interested in establishing a business and who need information about the legal issues involved. Legal aspects such as forms of ownership, licensing, and taxes will be covered. (GC)

**BA-123 Math for Accounting and Business**
54.00 hrs lecture  
Units: 3.00  
Advisory: BA-101A, ENGL-151B, MATH-151  
Accepted For Credit: CSU  
This course focuses on methods of problem interpretation and solving common business calculations, such as taxes, interest, depreciation, stocks, and insurance. (GC)

**BA-125 Introduction to Business**
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
This survey course in business provides a multidisciplinary examination of how culture, society, economic systems, legal, international, political, financial institutions, and human behavior interact to affect a business organization’s policy and practices within the United States and within a global society. This course demonstrates how these influences impact the primary areas of business, including organizational structure and design; leadership, human resource management, organized labor practices; marketing; organizational communication; technology; entrepreneurship; legal, accounting, financial practices; the stock and securities market; and therefore affect a business’ ability to achieve its organizational goals. (GR) C-ID BUS 110
BA-139  Psychology in the Workplace
$4.00 hrs lecture
Units: 3.00
Cross-referenced Course: PSY-139
Advisory: PSY-101, ENGL-101A
Accepted For Credit: CSU
This course applies principles of psychology to the workplace. Topics include combination skills, stress, cultural diversity, teamwork, understanding self and others, motivation, leadership, and other factors crucial to functioning effectively in the workplace. (GC)

BA-141A  Business Law
$4.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course covers fundamental legal principles pertaining to business transactions. Introduction to the legal process. Topics include sources of law and ethics, contracts, torts, agency, criminal law, business organizations, and judicial and administrative processes. (GC) C-ID BUS 125

NONCREDIT BA COURSES

BA-916A  Basic Business English Writing I
36.00 hrs lecture
Units: 0.00
This noncredit course is designed to provide students with the skills necessary to effectively compile documents for business applications. Not applicable to associate degree. Repeatable = Unlimited times (CR)

BA-916B  Basic Business English Writing II
36.00 hrs lab
Units: 0.00
This noncredit course is designed to provide students with additional skills necessary to effectively compile documents for business applications. Not applicable to associate degree. Repeatable = Unlimited times (CR)

BA-921A  Developing Your Business Plan
9.00 hrs lab
Units: 0.00
This noncredit course is designed for students who desire to start their own business. Students create a business plan that describes their new business; its products or services; funding; operations; and staffing. Other essential elements needed for the first three to five years of a new business are also introduced. Not applicable to associate degree. Repeatable = Unlimited times (NG)

BA-921B  Legal Aspects of Small Business
9.00 hrs lab
Units: 0.00
This noncredit course is designed for students interested in establishing a business. All legal aspects are covered, such as forms of ownership, licensing, and taxes. Not applicable to associate degree. Repeatable = Unlimited times (NG)

Business Supervision Management (BSM)

Division: Business
Executive Dean: Andrew LaManque
Location: Newark campus, Room NC1220
Phone number: 510-742-2301

This department offers Special Projects courses (BSM-201, BSM-202, and BSM-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

BSM-101  Fundamentals of Supervision
$4.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B
Accepted For Credit: CSU
This course provides an overview of supervisory competencies, principles, and practices from defining the supervisor’s role to the challenges of ensuring effective employee communications. Topics also include staffing, professional development, workplace safety, and conflict resolution. (GC)

BSM-102  Interpersonal Relations in the Workplace
$4.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B
Accepted For Credit: CSU
This course covers interpersonal communication, employee-employer relations, cultural awareness, conflict resolution, stress management, and team development. (GC)
BSM-103 Management of Human Resources  
4.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B  
Accepted For Credit: CSU  
This course covers principles and practices for managerial personnel: employment/industrial relations; equal employment opportunity principles; sexual harassment; training and professional development; wage, salary, compensation, and benefit administration; job performance evaluations reviews; workplace safety and accident prevention; and conflict resolution. (GC)

BSM-110K Customer Service  
4.00 hrs lecture  
Units: 0.50  
This course covers key skills and attitudes necessary to effectively meet the customer’s needs. (GC)

BSM-105 Operations Management  
4.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-151B  
Accepted For Credit: CSU  
This course covers the principles of operations management: globalization, forecasting, materials/production/project management, and total quality management principles and practices. (GC)

BSM-106 Communication for Supervisors  
4.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
This course covers the principles and practices for the techniques of communication in the workplace including active listening, intercultural communication, verbal and nonverbal communication, conducting meetings, and effective presentations. (GC)

BSM-108 Leadership in Organizations  
4.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
This course provides an overview of principles of leadership, supervision, power, and politics in the workplace; team decision-making/problem solving, motivating employees, coaching, social responsibility, and business ethics. (GC)

BSM-110A Communications in the Workplace  
9.00 hrs lecture  
Units: 0.50  
This course introduces the key elements for communication in the professional workplace. The course is beneficial for students seeking to improve their interpersonal communication skills. (GC)

BSM-100B Writing Skills for Managers  
9.00 hrs lecture  
Units: 0.00  
This noncredit course is designed to provide students with the skills necessary to effectively write various business documents. This course is beneficial for students seeking to improve their written communication skills in the workplace. Not applicable to associate degree. Repeatable = Unlimited times (NG)

BSM-110C Attitude in the Workplace  
9.00 hrs lecture  
Units: 0.00  
This noncredit course introduces the key elements for attitude in the professional workplace. This course is beneficial for students seeking to improve their ability to communicate a positive attitude while at work. Not applicable to associate degree. Repeatable = Unlimited times (NG)

BSM-110D Decision Making and Problem Solving  
9.00 hrs lecture  
Units: 0.00  
This noncredit course introduces the key elements for decision making and problem solving in the professional workplace. This course is beneficial for students seeking to improve their decision making and problem solving skills. Not applicable to associate degree. Repeatable = Unlimited times (NG)

BSM-100E Managing Organizational Change  
9.00 hrs lecture  
Units: 0.00  
This noncredit course introduces the key elements for managing organizational change in the professional workplace. This course is beneficial for students seeking to improve their understanding of how to manage organizational change. Not applicable to associate degree. Repeatable = Unlimited times (NG)

BSM-110F Stress Management in the Workplace  
9.00 hrs lecture  
Units: 0.00  
This noncredit course is designed to acquaint students with key elements of stress management in the workplace. This course is beneficial for students seeking to improve their skills in recognizing and managing stress. Not applicable to associate degree. Repeatable = Unlimited times (NG)
BSM-910G Team Building
9.00 hrs lecture
Units: 0.00
This noncredit course is designed to provide students with an understanding of how teams work together, and common problems teams encounter and how to solve them. Not applicable to associate degree. Repeatable = Unlimited times (NG)

BSM-910H Time Management
9.00 hrs lecture
Units: 0.00
This noncredit course is designed to introduce students to time management principles and specific tools that assist in making the most efficient use of time. This course is beneficial for students seeking to improve their time management skills. Not applicable to associate degree. Repeatable = Unlimited times (NG)

BSM-910I Conflict Resolution
9.00 hrs lecture
Units: 0.00
This noncredit course is designed to introduce students to the meaning of conflict, the causes of conflict, and strategies for resolving interpersonal conflict. This course is beneficial for students seeking to improve their conflict resolution skills. Not applicable to associate degree. Repeatable = Unlimited times (NG)

BSM-910J Values and Ethics
9.00 hrs lecture
Units: 0.00
This noncredit course is designed to acquaint students with the importance of values and ethics in the workplace. This course is beneficial for students seeking to improve skills in interpreting how values influence actions and evaluating the impact of ethical behavior. Not applicable to associate degree. Repeatable = Unlimited times (NG)

BSM-910K Customer Service
9.00 hrs lecture
Units: 0.00
This noncredit course covers key skills and attitudes necessary to effectively meet the customer’s need and teaches students best practices for the importance of values and ethics in the workplace. Not applicable to associate degree. Repeatable = Unlimited times (NG)

BSM-930A Effective Job Search Skills I
9.00 hrs lab
Units: 0.00
This noncredit course is the first part of a two series noncredit certificate program. Students are introduced to the Ohlone College Career Center; job search strategies; resume writing and formatting; and how to navigate a professional social media platform. Not applicable to associate degree. Repeatable = Unlimited times (CR)

BSM-930B Effective Job Search Skills II
9.00 hrs lab
Units: 0.00
This noncredit course is the second part of a two series noncredit certificate program. Students are introduced to job search skills and tactics to perfecting the interview process. Not applicable to associate degree. Repeatable = Unlimited times (CR)

---

**Chemistry** (CHEM)

**Division:** Science, Engineering, and Mathematics  
**Academic Dean:** Loretta Silverman  
**Division Administrative Assistant:** Irene Benavidez  
**Location:** Fremont campus, Room 1301L  
**Phone number:** 510-659-6191

This department offers Special Projects courses (CHEM-201 and CHEM-202). Please see page 156 of this catalog for more information regarding Special Projects courses.

**CHEM-101A General Chemistry**
54.00 hrs lecture, 108.00 hrs lab  
Units: 5.00  
Prerequisite: CHEM-102 and MATH-152, or satisfactory performance on the Chemistry Placement Test at Ohlone College  
Accepted For Credit: CSU & UC  
CHEM-101A is a general college-level inorganic chemistry course designed for students majoring in biology, chemistry, engineering, pre-med, and other fields demanding rigorous scientific preparation. Topics covered include atomic theory, stoichiometry, chemical reactions, introductory thermochemistry, theories of bonding, and properties of solids, liquids, gases, and solutions. (GR) C-ID CHEM 110; CHEM-101A + CHEM-101B = C-ID CHEM 120 S

**CHEM-101B General Chemistry**
54.00 hrs lecture, 108.00 hrs lab  
Units: 5.00  
Prerequisite: CHEM-101A  
Accepted For Credit: CSU & UC  
Chemistry 101B continues the study of chemistry taught in Chemistry 101A. Theory and mathematical applications are emphasized. This course is designed for science-oriented majors including biology, chemistry, engineering, and pre-professional health. Topics include kinetics; equilibrium; acids and bases; solubility; thermodynamics; electrochemistry; nuclear chemistry; properties of organic molecules; buffers, proteins, and compounds containing transition elements; organic chemistry; and coordination compounds. This course provides students with the necessary foundation for Organic Chemistry, CHEM-112A. (GR) C-ID CHEM-101A + CHEM-101B = C-ID CHEM 120 S

**CHEM-102 Preparation for General Chemistry**
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: MATH-151  
Accepted For Credit: CSU & UC  
This course is a preparatory chemistry course covering the fundamentals of modern inorganic chemistry with emphasis on problem solving and mathematical calculations. Topics include classification of matter; atomic and molecular structure; chemical formula and nomenclature; chemical equations and stoichiometry; thermochemistry; and gas laws and solutions. CHEM-102 is intended primarily as a preparation for students planning to take CHEM-101A. CHEM-102 is recommended for students who have been away from high school chemistry for more than two years or those whose previous chemistry background is inadequate for CHEM-101A. (GR)
CHEM-106A Principles of Chemistry I
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: MATH-151
Accepted For Credit: CSU & UC
This is an introductory chemistry course for allied-health majors and students who plan to transfer to programs which require two semesters of chemistry. This course is the first semester of two courses. Principles of Chemistry I and II are not recommended for students majoring in science. This course also fulfills the requirements for non-science majors who need to complete a science course with a lab. Topics include dimensional analysis, nomenclature, atomic theory, bonding, chemical reactions, gas laws, solutions, and colligative properties. The course requires students to purchase a lab coat; goggles with indirect venting and side shielding; and a calculator. (GR)

CHEM-106B Principles of Chemistry II
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: CHEM-106A
Accepted For Credit: CSU & UC
This is an introductory chemistry course for allied health majors and students who plan to transfer to programs which require two semesters of chemistry. This course is the second semester of two courses. Principles of Chemistry I and II are not recommended for students majoring in science. Topics include material from organic chemistry and biochemistry, including the major classes of organic molecules, basic reactions, the major processes which take place in body fluids, proteins, nucleic acids, and a brief overview of metabolism. The course requires students to purchase a lab coat; goggles with indirect venting and side shielding; and a calculator. (GR)

CHEM-108 Survey of Chemistry
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This is a general education, non-lab course about the chemistry of everyday things. Some of the topics considered are food, medicine, petroleum, pollution, plastics, cosmetics, and poisons. The course gives information about atoms and structure to help the student interpret everyday occurrences from a molecular point of view. Concepts, not calculations, are emphasized. (GC)

CHEM-109 Biochemistry for Health Science and Biotechnology
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: MATH-151
Accepted For Credit: CSU & UC
This course covers the basic concepts of inorganic and organic chemistry and biochemistry as they apply to the human body. The course is open to all students; no previous chemistry is required. This course satisfies the requirements of nursing, biotechnology, and related majors that require one semester of chemistry. This course does not meet the prerequisite for Chemistry 101A. (GR)

CHEM-112A Organic Chemistry
54.00 hrs lecture, 108.00 hrs lab
Units: 5.00
Prerequisite: CHEM-101B
Accepted For Credit: CSU & UC
CHEM-112A is the first semester of organic chemistry for science-oriented, pre-professional health, and pre-engineering students. This course includes a study of important organic molecules found in living systems and man-made molecules. This course is designed primarily for students who require a full year of organic chemistry, including nomenclature, multistep synthesis, heterocyclic compounds, and advanced spectroscopy. (GR) C-ID CHEM 150; CHEM-112A + CHEM-112B = C-ID CHEM 160 S

CHEM-112B Organic Chemistry
54.00 hrs lecture, 108.00 hrs lab
Units: 5.00
Prerequisite: CHEM-112A
Accepted For Credit: CSU & UC
CHEM-112B is the second semester of organic chemistry for science-oriented, pre-professional health, and pre-engineering students. This course includes a study of important organic molecules found in living systems and man-made molecules. This course is designed primarily for students who require a full year of organic chemistry, including nomenclature, multistep synthesis, mechanisms, heterocyclic compounds, and spectroscopy. (GR) C-ID: CHEM-112A + CHEM-112B = C-ID CHEM 160 S

Chicano/Latino Studies (CHS)

Division: Social Sciences
Academic Dean: Ghada Al-Masri
Division Administrative Assistant: Sheila Holland
Location: Fremont campus, Room 3316J
Phone number: 510-659-6216

This department offers Special Projects courses (CHS-201 and CHS-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

CHS-101 Chicano/Latino Culture
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: SOC-106
Accepted For Credit: CSU & UC
This course examines the social, cultural, political, and economic heritage of the Chicanos and their contribution to American society. (GR)

CHS-102A Chicana/o History I
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: HIST-102A
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course covers the history of Chicanas and Chicanos from Pre-Colombian times to 1850. The course emphasizes the political, economic, and social influences of Pre-Columbian America, Spain, Mexico, and the United States. The course includes a study of the United States Constitution. (GR)
ANNOUNCEMENT OF COURSES

CHS-102B Chicana/o History II
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: HIST-102B
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course covers the history of the Mexican-American experience from 1850 to the present day. The course emphasizes the political, economic, and social experiences of the Mexican American people under the influences of Mexico and the United States, and includes a study of the Constitution of California. (GR)

CHS-106A Chicano/Latino Literature
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course offers an introduction to literature by Chicanos and Latinos. Through performing in-depth studies of certain authors, the students will view literature as a reflection of Chicano/Latino life. (GR)

CHS-112 Contemporary Issues of Chicanas
54.00 hrs lecture
Units: 3.00
Prerequisite: ENGL-163 or ENGL-101A
Accepted For Credit: CSU & UC
This course is an examination of the historical, social-economic, and political conditions which have shaped the lives of contemporary Chicanas in the United States. The course will explore cultural patterns underlying race, class, and gender-based strategies and inequities as basic elements of contemporary social structure. (GC)

Chinese (CHIN)
Division: Language, Communication, and Academic Success
Academic Dean: Mark Lieu
Division Administrative Assistant: Dana Pope
Location: Fremont campus, Room 3420K
Phone number: 510-659-6173

This department offers Special Projects courses (CHIN-201 and CHIN-202). Please see page 156 of this catalog for more information regarding Special Projects courses.

CHIN-101A Elementary Mandarin Chinese I
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Accepted For Credit: CSU & UC
This course is an introduction to modern standard Chinese language (Mandarin). Students will acquire listening, speaking, reading, and writing skills in order to communicate effectively in simple Chinese for common everyday purposes. This course teaches the Chinese phonetic system, the structures of Chinese characters, the basic Chinese grammatical concepts, and aspects of Chinese culture in relation to the topic of the concurrent lesson. (GR)

CHIN-101B Elementary Mandarin Chinese II
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: CHIN-101A
Accepted For Credit: CSU & UC
This course is a continuation of CHIN-101A. Students will continue to acquire listening, speaking, reading, and writing skills in Chinese (Mandarin) and will continue cultural studies as an integral part of the course. (GR)

CHIN-102A Intermediate Mandarin Chinese I
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: CHIN-101B or three years of high school Chinese
Accepted For Credit: CSU & UC
This course is a continuation of CHIN-101B with emphasis on the four areas of listening, speaking, reading, and writing in Mandarin, as well as the study of Chinese culture with greater depth. (GR)

CHIN-102B Intermediate Mandarin Chinese II
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: CHIN-102A
Accepted For Credit: CSU & UC
This course is a continuation of CHIN-102A with emphasis on the four areas of listening, speaking, reading, and writing in Mandarin, as well as the study of Chinese culture with greater depth. (GR)

Did you know???
The Morris and Alvera Hyman Hall on the Fremont campus is named after the founders of the Fremont Bank, in recognition of a significant endowment established in their honor.
Communication Studies (COMM)

Division: Language, Communication, and Academic Success
Academic Dean: Mark Lieu
Division Administrative Assistant: Dana Pope
Location: Fremont campus, Room 3420K
Phone number: 510-659-6173

This department offers Special Projects courses (COMM-201 and COMM-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

COMM-100 Introduction to Communication Theory
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
In this course students will analyze, evaluate, and apply the major communication theories and research in the communication studies field such as interpersonal, group/organizational, cultural communication, rhetoric, and mass communication. (GR) C-ID COMM 180

COMM-111 Introduction to Public Speaking
54.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Advisory: ENGL-151RW, or ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course covers rhetorical theory and practice of speech making in groups and public settings. A variety of perspectives and techniques are used to research, organize, deliver, and evaluate public presentations. Emphasis is on rights and responsibilities of citizenship in a free democratic society. (GR) C-ID COMM 110

COMM-112 Small Group Communication/Critical Thinking
54.00 hrs lecture
Units: 3.00
Prerequisite: ENGL-101A
Accepted For Credit: CSU & UC
In this course students will learn how to enhance small group communication and team building through the study of theories, concepts, and practices of effective group decision making and problem solving. The emphasis will be on logical reasoning and the evaluation of evidence. (GR) C-ID COMM 140

COMM-113 Interpersonal Communication
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-151B
Accepted For Credit: CSU & UC
Study and practice the principles of verbal and non-verbal communication in intrapersonal and interpersonal relationships. The course covers the study of theory and research findings and their application to communication in interpersonal relationships in personal and professional contexts. (GR) C-ID COMM 130

COMM-114 Critical Thinking/Persuasion
54.00 hrs lecture
Units: 3.00
Advisory: COMM-111 and ENGL-101A
Accepted For Credit: CSU & UC
In this course students will examine historical and contemporary approaches to persuasive messages throughout time. Persuasive theories and concepts will be analyzed, presented, and critiqued. Emphasis on logical reasoning, evaluation of evidence, and the development of a persuasive message will be covered. (GR) C-ID COMM 190

COMM-115 Intercultural Communication
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
In this course we will examine the connections of culture and communication from a variety of perspectives, while exploring how our own cultural identities are co-constructed through our communication practices and interactions. Understand how we communicate and interact with others across dimensions of race, class, nation, histories, power, privilege, and many other categories of identity in order to be able to practice more productive and effective communication across cultural differences locally and globally. (GR) C-ID COMM 150

COMM-116 Critical Thinking/Argumentation and Debate
54.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
Students will develop critical thinking through oral advocacy and debate in this course. Emphasis on both written and oral arguments based on logic and reasoning. (GR) C-ID COMM 120

COMM-117 Leadership Communication
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
In this course students explore and analyze how leadership theory can inform and direct the way leadership is practiced. Traditional and interactional theories of leadership will be analyzed, including the influences of culture and gender on leadership. Emphasis is on theory and practice. (GR)

COMM-118 Gender, Sexual Identity, and Communication
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: WS-108
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
In this course students will examine the myriad communicative processes which function to create, maintain, reinforce, and challenge cultural expectations of gender performances. (GR)

COMM-122 Family Communication
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
In this course students will explore family communication theories, patterns of interactions, and ways in which family communication can be enhanced, including conflict management. (GR)
COMM-124 Introduction to Health Communication
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-151B
Accepted For Credit: CSU
Health communication explores how communication informs the study and understanding of issues of patient and provider communication; healthcare systems; culture of medicine; caregiving; end of life communication; medical decision making; health promotion and behavior change campaigns; health narratives; computer-mediated social support; health information seeking; and health entertainment and popular culture. (GR)

COMM-125 Career Communication
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: BA-115
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
Students will develop vital communication skills for global and diverse professional environments including presentation skills, interviewing, interpersonal communication, leadership skills, and small group communication. (GR)

COMM-126 Listening Techniques
18.00 hrs lecture
Units: 1.00
Accepted For Credit: CSU
In this course students will examine listening styles and practice listening skills for college, career, and personal development. Emphasis is on the benefits of listening, listening theory, and tips for improving listening. (GR)

COMM-130 Oral Interpretation of Literature
54.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Cross-referenced Course: TD-130
Advisory: ENGL-151B
Accepted For Credit: CSU & UC
Using performance as a communication concept, students will explore performance theory and apply theoretical communication theories of performance using all genres of literature. (GR) C-ID COMM 170

COMM-132 Voice and Diction
54.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Cross-referenced Course: TD-132
Accepted For Credit: CSU & UC
Students learn to understand and enhance the speaking voice and vocal quality through oral exercises that focus on expressiveness and articulation. Students also increase vocabulary and use the International Phonetic Alphabet in transcription and pronunciation. (GR)

COMM-134 Introduction to Performance Studies
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: TD-134
Accepted For Credit: CSU & UC
Live performance is used as a method for exploring human behavior as it occurs within contemporary cultures and societies. Performance assignments will draw from among the following: performance of texts, street performance, personal narrative, oral history, everyday life, and social justice. (GR)

COMM-190A Communication Lab Consultant
18.00 hrs lecture, 18.00 hrs lab
Units: 1.00
Prerequisite: COMM-111
Accepted For Credit: CSU
By serving as a tutor in the Communication Lab, students will learn teaching-learning techniques that include assistance with the entire speech making process including thesis development, outlining, research, and delivery skills. Students gain teaching experience while improving their own communication skills. (GR)

COMM-190B Communication Lab Consultant
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Prerequisite: COMM-111
Accepted For Credit: CSU
Consultants/tutors in the Communication Lab will strengthen teaching-learning techniques and provide assistance to the speech-making process: thesis development and revision; improving outlining; refining research and delivery skills. (GR)

COMM-190C Communication Lab Consultant
18.00 hrs lecture, 108.00 hrs lab
Units: 3.00
Prerequisite: COMM-111
Accepted For Credit: CSU
By serving as a consultant/tutor in the Communication Lab, students will master teaching-learning techniques that provide assistance with the speech-making process. (GR)

COMM-191A1 Introductory Forensics Workshop
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Accepted For Credit: CSU
Participate in or attend public speeches or performances in order to encourage community awareness. (GR)

COMM-191A2 Forensics Workshop
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
Participate in public speeches, events, or performances in order to encourage community awareness. (GR)

COMM-191A3 Forensics Competition
27.00 hrs lecture, 81.00 hrs lab
Units: 3.00
Advisory: COMM-111, COMM-116, or COMM-130
Accepted For Credit: CSU
Students will compete on the Forensics Team in three or more of the following events: informative speaking, persuasive speaking, impromptu, extemporaneous, speech to entertain, communication analysis, or debate. Repeatable = 1 time (GC)
C-ID COMM 160 B

COMM-192A1 Argumentation and Debate Workshop
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Accepted For Credit: CSU
Students will participate in or attend debates, speeches, or public meetings, and then analyze and evaluate these events. Repeatable = 3 times (GR)

COMM-192A2 Argumentation and Debate Workshop
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
Students will participate in or attend public meetings or debates in order to encourage critical thinking and community involvement. Repeatable = 3 times (GR)
COMM-192A3  Competitive Argumentation and Debate
27.00 hrs lecture, 81.00 hrs lab
Units: 3.00
Advisory: COMM-111 and COMM-116
Accepted For Credit: CSU
Students will compete on the Argumentation and Debate Team; research significant contemporary problems; analyze issues, evidence, and logic; and present researched arguments.
Repeatable = 3 times (GR) C-ID COMM 160 B

COMM-193  Oral Interpretation Competition
27.00 hrs lecture, 81.00 hrs lab
Units: 3.00
Advisory: COMM-111 or COMM-130
Accepted For Credit: CSU
Students will participate in competitive oral interpretation of literature (poetry, prose, or drama) with an emphasis on the analysis and interpretation of the material. (GR) C-ID COMM 170

Computer Applications and Occupational Technology (CAOT)

Division: Science, Engineering, and Mathematics
Academic Dean: Loretta Silverman
Division Administrative Assistant: Irene Benavidez
Location: Fremont campus, Room 1301L
Phone number: 510-659-6191

This department offers Special Projects courses (CAOT-201, CAOT-202, and CAOT-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

CAOT-101A  Computer Applications I
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Cross-referenced Course: CS-101A
Accepted For Credit: CSU
This course is the first level in a three part series covering introductory to intermediate level skills and competency in the use of Microsoft Office Suite applications, along with mastery of keyboard touch-typing. Students are introduced to applications used in creating professional documents, worksheets, presentations, databases, and email. The applications covered in this course include Word, Excel, PowerPoint, and Outlook. (GR)

CAOT-101B  Computer Applications II
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Advisory: CAOT-101A
Accepted For Credit: CSU
This course is the second level in a three part series covering intermediate to advanced level skills and competency in the use of Microsoft Office Suite applications. Students continue to master applications used in creating professional documents, worksheets, presentations, and personal information manager Microsoft Outlook. (GR)

CAOT-101C  Computer Applications III
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Advisory: CAOT-101B
Accepted For Credit: CSU
This course is the third level in a three part series covering topics which include advanced level skills in spreadsheet tables; charts and functions using Microsoft Excel; and introductory to intermediate level skills utilizing database management applications with Microsoft Access. (GR)

CAOT-148  Computer Applications in Biotechnology
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Corequisite: BIOT-105
This course introduces basic computer skills necessary to perform tasks required in an introductory Biotechnology course. This course covers key concepts using spreadsheet, presentation, database, and word processing software. (GR)

CAOT-150  Excel for the Sciences
27.00 hrs lab
Units: 0.50
This course provides an introduction to Microsoft Excel with specific emphasis on applications to data science, chemistry, and engineering. Instructor provides relevant course materials and lecture notes for students. No textbook is recommended or required. (GC)

CAOT-151  Mathematical Computation and Communication
27.00 hrs lab
Units: 0.50
This course provides an introduction to Mathematica, Matlab, and LaTeX with specific emphasis on applications to calculus and engineering. Instructor provides relevant course materials and lecture notes for students. No textbook recommended or required. (GC)

NONCREDIT CAOT COURSES

CAOT-904  Basic Business Keyboarding
36.00 hrs lecture
Units: 0.00
This noncredit introductory course develops basic keyboarding skills for students entering a variety of fields such as business, computer science, data processing, accounting, and/or any other occupation that utilizes a keyboard to input information. Applications will be covered. Not applicable to associate degree. Repeatable = Unlimited times (CR)

CAOT-912A  Beginning Technology Skills I
18.00 hrs lecture, $4.00 hrs lab
Units: 0.00
This noncredit course is the first in a series of two sequential courses that provide office terminology and computer skill sets needed for today's digital employee. Not applicable to associate degree. Repeatable = Unlimited times (NG)
CAOT-912B  Beginning Technology Skills II  
18.00 hrs lecture, 54.00 hrs lab  
Units: 0.00  
This noncredit course is the second in a series of two sequential courses that provide office terminology and computer skill sets needed for today's digital employee. Students gain more advanced skill sets using the Microsoft Office Suite. Not applicable to associate degree. Repeatable = Unlimited times (NG)  

CAOT-920A  Beginning Word Processing I  
36.00 hrs lecture  
Units: 0.00  
This noncredit course allows students to develop a working knowledge of a word processing program that includes editing text, formatting, saving, printing, and using spellcheck, thesaurus, tables, and images. Not applicable to associate degree. Repeatable = Unlimited times (CR)  

CAOT-920B  Beginning Word Processing II  
36.00 hrs lab  
Units: 0.00  
This noncredit course allows students to acquire additional word processing functions within the word processing program for business application. Additional functions include adding tables, charts, images, and watermarks to documents. Mail merge, shading and formatting, Word Art, and more are also covered. Not applicable to associate degree. Repeatable = Unlimited times (CR)  

CAOT-921A  Beginning Spreadsheet Software I  
36.00 hrs lecture  
Units: 0.00  
This is a noncredit introductory course in the use of spreadsheet software. Topics include basic functions and the development of spreadsheet models. Not applicable to associate degree. Repeatable = Unlimited times (CR)  

CAOT-921B  Beginning Spreadsheet Software II  
36.00 hrs lab  
Units: 0.00  
This is a noncredit course introducing additional software function tools for creating spreadsheets for business applications. Not applicable to associate degree. Repeatable = Unlimited times (CR)  

CAOT-922  Basics of Business Presentation Software  
36.00 hrs lecture  
Units: 0.00  
This noncredit course allows students to develop a working knowledge of a presentation software. The course includes tips and tricks to creating a successful business presentation. Not applicable to associate degree. Repeatable = Unlimited times (CR)  

CAOT-923  Email for Business  
9.00 hrs lab  
Units: 0.00  
This noncredit introductory course teaches students how to use email for business. Students learn how to compose, save, print, and send email and attachments. Not applicable to associate degree. Repeatable = Unlimited times (CR)  

Computer Science (CS)  
Division: Science, Engineering, and Mathematics  
Academic Dean: Loretta Silverman  
Division Administrative Assistant: Irene Benavidez  
Location: Fremont campus, Room 1301L  
Phone number: 510-659-6191  

This department offers Special Projects courses (CS-201, CS-202, and CS-203). Please see page 156 of this catalog for more information regarding Special Projects courses.  

CS-101  Introduction to Computers and Information Technology  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: CNET-101  
Advisory: ENGL-151B  
Accepted For Credit: CSU & UC  
This course is a general introduction to the use of computers and information technology, and is designed for all students. This course survey examines a broad overview of topics including software, hardware, the networking of computer systems, information technology, and survey of programming languages. Students explore the implications of this technology with regard to today's information society. (GC)  

CS-101A  Computer Applications I  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Cross-referenced Course: CAOT-101A  
Accepted For Credit: CSU  
This course is the first level in a three part series covering introductory to intermediate level skills and competency in the use of Microsoft Office Suite applications, along with mastery of keyboard touch-typing. Students are introduced to applications used in creating professional documents, worksheets, presentations, databases, and email. The applications covered in this course include Word, Excel, PowerPoint, and Outlook. (GR)  

CS-102  Introduction to Computer Programming Using C++  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Prerequisite: MATH-152  
Advisory: CS-101 or CNET-101  
Accepted For Credit: CSU & UC  
This course is an introduction to computer programming. Its primary objective is to teach problem solving using the C++ programming language. Emphasis is placed on structured procedural programming with an introduction to object-oriented programming. This course is designed primarily for computer science and related transfer majors. (GR) C-ID COMP 122
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Course Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS-113</td>
<td>Discrete Structures</td>
<td>3.00</td>
<td>54.00</td>
<td></td>
<td>Emphasis will be placed on basic Java programming concepts and discrete probability. (GR) C-ID COMP 152</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td>CS-116</td>
<td>Object-Oriented Programming Using C++</td>
<td>4.00</td>
<td>54.00</td>
<td></td>
<td>This intermediate-level programming course is intended for students who have already completed an introductory programming course. This course presents a comprehensive study of the C++ programming language and its role in the realm of object-oriented programming. The C++ language supports input/output streams; class constructs; inheritance; polymorphism; function and operator overloading; function and class templates; and exception handling. (GR) C-ID COMP 152</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td>CS-118</td>
<td>Introduction to Assembly Language Programming</td>
<td>3.00</td>
<td>36.00</td>
<td></td>
<td>This course is an introduction to assembly language for computers. Topics include numbering systems, architecture, native machine instructions, memory addressing, subroutines, system calls, file I/O, and interaction between assembly language programs, the operating system, and other languages. (GR) C-ID COMP 142</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td>CS-124</td>
<td>Programming with Data Structures</td>
<td>3.00</td>
<td>36.00</td>
<td></td>
<td>This course involves the study and implementation of data structure programming techniques. The emphasis is on the data structures of stacks, queues, lists, trees, and hash tables; the use of recursion; and the application of these tools primarily to searching and sorting. Students implement these concepts by writing programs in an object-oriented language such as C++. (GR) C-ID COMP 132</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td>CS-125</td>
<td>Introduction to Java Programming</td>
<td>4.00</td>
<td>54.00</td>
<td></td>
<td>This course is an introduction to computer programming. The course's primary objective is to teach the fundamentals of programming using the Java programming language. Emphasis will be placed on basic Java programming concepts and skills. This course is designed primarily for computer science and related transfer majors. (GR) C-ID COMP 112</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td>CS-133</td>
<td>Introduction to Statistical Software Programming</td>
<td>3.00</td>
<td>4.00</td>
<td></td>
<td>Statistical software has become the international standard for data management, manipulation, storage, retrieval, and statistical analysis. This course offers a rigorous exposure to statistical big data analysis by using core elements of programming language and procedures. (GR)</td>
<td>CSU</td>
</tr>
<tr>
<td>CS-137</td>
<td>Introduction to SQL</td>
<td>4.00</td>
<td>54.00</td>
<td></td>
<td>This course covers the concepts of relational databases and powerful SQL. Students are taught to create and maintain database objects and to store, retrieve, and manipulate data. Demonstrations and hands-on practice reinforce the fundamental concepts. (GC)</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td>CS-146</td>
<td>Introduction to UNIX/Linux</td>
<td>3.00</td>
<td>36.00</td>
<td></td>
<td>This lecture/lab course introduces functions and features of the UNIX/Linux operating system, including origin and evolution; hardware and software; both command-line and graphical user interface; files and file system structure; system services; processes; background processing; scheduling; file security; the vi editor; file sharing; and redirection and piping. Students are also introduced to shell programming and a variety of UNIX/Linux command-line and graphical tools. (GR)</td>
<td>CSU</td>
</tr>
<tr>
<td>CS-147</td>
<td>UNIX/Linux Shell Scripting</td>
<td>4.00</td>
<td>54.00</td>
<td></td>
<td>This course introduces a variety of the tools and concepts used while working with a UNIX/Linux-based computer system. The course introduces UNIX shells, comparing and contrasting the major ones. Students will learn to write shell scripts using basic commands, regular expressions, vi, sed, and awk. They will then use those tools to write scripts for various shells such as the Bourne, C, Korn, and Bash shells. Other scripting tools such as Perl and Python will also be explored. Students will write shell script programs to exercise their understanding of tools and concepts. This course will be taught using a combination of lectures, demonstrations, discussions, and hands-on labs. (GR)</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td>CS-151</td>
<td>Internet for Research</td>
<td>0.50</td>
<td>9.00</td>
<td></td>
<td>This course focuses on finding and evaluating information on the Internet for academic research. The course introduces students to the principles of Internet search strategies, citation styles, and how to avoid plagiarism. (CR)</td>
<td>CSU</td>
</tr>
</tbody>
</table>

Notes: CSU = California State University; UC = University of California; Accepted For Credit: CSU & UC
CS-152  Data Communications
36.00 hrs lecture
Units: 2.00
Cross-referenced Course: CNET-152
Accepted For Credit: CSU
This course provides students with an overview of the concepts and fundamentals of data communication and computer networks. Topics to be covered include data communication concepts and techniques in a layered network architecture; communications switching and routing; types of communication; network congestion; network topologies; network configuration and management; network model components; layered network models (OSI reference model, TCP/IP networking architecture) and their protocols; and various types of networks (LAN, MAN, WAN, and wireless networks) and their protocols. (GC)

CS-162  XHTML
36.00 hrs lecture, 108.00 hrs lab
Units: 4.00
Advisory: CS-101, CNET-101, or CS-101A
Accepted For Credit: CSU & UC
Students will use XHTML to create multimedia web pages using hypertext links, tables, frames, forms, cascading style sheets (CSS), JavaScript, and JavaScript objects and events. Other topics include Dynamic Hypertext Markup Language (DHTML) techniques and working with eXtensible Markup Language (XML) and eXtensible Stylesheet Language (XSL). (GC)

CS-170  Intermediate Java Programming
$4.00 hrs lecture, $4.00 hrs lab
Units: 4.00
Prerequisite: CS-125
Advisory: CS-102
Accepted For Credit: CSU & UC
This intermediate-level programming course is intended for those students who already have completed an introductory programming course. This course presents a comprehensive study of the object-oriented programming in Java. Fundamentals of encapsulation, inheritance, polymorphism, abstraction, method overloading and overriding, exception handling, GUI components, event handling, multimedia programming, and input/output streams are introduced. (GC)

CS-175  JavaScript for Web Development
$4.00 hrs lecture, $4.00 hrs lab
Units: 4.00
Advisory: CS-101
Accepted For Credit: CSU
This hands-on JavaScript programming course provides the knowledge necessary to design and develop dynamic web pages using HTML, CSS, JavaScript, and jQuery. The lessons familiarize the student with the basics of JavaScript, then move on to jQuery, the most popular JavaScript library, taking web programming to the next level of interactivity and ease of use. (GC)

Computers, Networks, and Emerging Technology  (CNET)
Division: Science, Engineering, and Mathematics
Academic Dean: Loretta Silverman
Division Administrative Assistant: Irene Benavidez
Location: Fremont campus, Room 1301L
Phone number: 510-659-6191
This department offers a Special Projects course (CNET-201). Please see page 156 of this catalog for more information regarding Special Projects courses.

CNET-101  Introduction to Computers and Information Technology
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: CS-101
Advisory: ENGL-151B
Accepted For Credit: CSU & UC
This course is a general introduction to the area of computers and information technology, and is designed for all students. This survey course examines a broad overview of topics including software, hardware, the networking of computer systems, information technology, and survey of programming languages. Students explore the implications of this technology with regard to today's information society. (GC)

CNET-103  Introduction to Business Intelligence
54.00 hrs lecture, $4.00 hrs lab
Units: 4.00
Advisory: Introduction to programming; general business knowledge
Accepted For Credit: CSU
Business Intelligence is a data analysis process which utilizes an integrated set of application systems, processes, and tools that transform raw data into meaningful and useful information for business analysis. Students will learn the fundamentals of business analysis and BI tools and processes that help businesses make strategic and tactical decisions based on data to improve operational efficiency, optimize business processes, identify new market trends, increase revenue, and gain competitive advantages. (GC)

CNET-104  Introduction to Emerging Technologies
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU
This course provides an introduction to different emerging and evolving technologies that are used in the Information Technology (IT) industry. Students will learn the fundamental knowledge to understand trends in new and emerging information technologies and how these technologies are used in business. (GC)

CNET-105  IT Essentials (CompTIA A+)
$4.00 hrs lecture, $4.00 hrs lab
Units: 4.00
Accepted For Credit: CSU
This course provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level ICT professionals. The fundamentals of computer hardware and software as well as advanced concepts such as security, networking, and the responsibilities of an ICT professional will be introduced. Preparation for CompTIA A+ certification exam. (GC) C-ID ITIS 110
CNET-107 IT Service Management (ITIL)
$4.00$ hrs lecture
Units: $3.00$
Accepted For Credit: CSU
The course is designed to introduce IT service systems in a variety of enterprise and service industry settings. The IT history and basic IT service methods will be reviewed. Students will learn about the key principles and concepts of IT Service Management and the basic concepts and definitions related to the Service Lifecycle. Students will gain knowledge of the ITIL (formerly known as Information Technology Infrastructure Library) terminology, structure, and basic concepts, and the core principles of ITIL practices for IT Service Management. (GC)

CNET-108 IT Project Management
$4.00$ hrs lecture
Units: $3.00$
Accepted For Credit: CSU
Learn the concepts and skills that build the foundations of project management—project integration, scope, time, cost, quality, human resources, communications, risk, and procurement—within an information technology (IT) environment. Prepare for industry certification. (GC)

CNET-114 How Technology Works
$4.00$ hrs lecture, $4.00$ hrs lab
Units: $4.00$
Cross-referenced Course: ENGI-114
Accepted For Credit: CSU
This course is intended for students of all disciplines who are interested in how everyday things work. This course is an introduction to some of the fundamental science concepts underpinning high technology, emphasizing everyday devices and practical experience, for the development of scientific and computer literacy. Students will experiment with technology to discover principles of science. Concepts such as force, work, energy, power, liquids and gasses, heat transfer, electricity, magnetism, electronics, and light are explored through experimentation and observation. Students will experience through class demonstrations and hands-on laboratories the concepts presented by the instructor. Phenomena such as how computers convert data, iPods transmit sound, air conditioners cool a room, solar heating panels capture heat, and how microwaves cook food are discussed. A laboratory session is included which offers students a chance to do experiments. A field trip to local tech industry displays is required. (GC)

CNET-120 VMware: Install, Configure, Manage
$27.00$ hrs lecture, $27.00$ hrs lab
Units: $2.00$
Accepted For Credit: CSU
This hands-on training course explores installation, configuration, and management of VMware vSphere, which consists of VMware ESXi/ESX and VMware vCenter Server. Upon completion of this course students can take the examination to become a VMware Certified Professional. The course is based on vSphere: Install, Configure, Manage using the latest release of software available. (GC)

CNET-122A Information Storage and Management - EMC
$27.00$ hrs lecture, $27.00$ hrs lab
Units: $2.00$
Accepted For Credit: CSU
Students will learn about the transition from a Classic Data Center environment to Virtual Data Center and the Cloud virtualization at each layer—compute, storage, network, desktop, and application—along with business continuity in a VDC environment. Students will also learn Cloud computing basics, infrastructure components, service management activities, security concerns, and considerations for Cloud adoption. (GR)

CNET-122B Cloud Infrastructure and Services
$27.00$ hrs lecture, $27.00$ hrs lab
Units: $2.00$
Advisory: CNET-122A
Accepted For Credit: CSU
This course covers Cloud deployment and service models, Cloud infrastructure, and the key considerations in migrating to Cloud computing. This course also provides the required technology essentials across all domains—including server, storage, networking, applications, and databases—to help develop a strong understanding of virtualization and Cloud computing technologies. (GR)

CNET-132 Introduction to Data Analytics
$27.00$ hrs lecture, $27.00$ hrs lab
Units: $2.00$
Accepted For Credit: CSU
This course will teach students about the data analytics software, such as Tableau desktop software application used for Big Data Analytics and Business Intelligence. Students will be introduced to the various different operations such as filters, calculations, creating sets, charting data, and creating great visuals that will help any business get more insight into the way the business is trending in order to make informed decisions on the future direction. (GC)

CNET-135 Oracle Database Administration
$27.00$ hrs lecture, $27.00$ hrs lab
Units: $2.00$
Accepted For Credit: CSU
The Oracle Database Administration course teaches students about the Oracle Database architecture. Students discover how to effectively manage an Oracle database instance, configure the Oracle network environment, and perform database maintenance. (GC)

CNET-136 Oracle Database Backup and Recovery
$27.00$ hrs lecture, $27.00$ hrs lab
Units: $2.00$
Advisory: CNET-135
Accepted For Credit: CSU
This course addresses backup and recovery techniques and examines various backup, failure, restore, and recovery scenarios for the Oracle database. (GC)

CNET-137 Introduction to SQL
$4.00$ hrs lecture, $4.00$ hrs lab
Units: $4.00$
Cross-referenced Course: CS-137
Accepted For Credit: CSU
This course covers the concepts of relational databases and powerful SQL. Students are taught to create and maintain database objects and to store, retrieve, and manipulate data. Demonstrations and hands-on practice reinforce the fundamental concepts. (GC)
CNET-138 PL/SQL Programming
$4.00 hrs lecture, $4.00 hrs lab
Units: 4.00
Advisory: CNET-137
Accepted For Credit: CSU
Students will program in PL/SQL and use this programming language. Students will create PL/SQL blocks of application code that can be used by forms and reports. Students will create procedures, functions, and packages. (GC)

CNET-140 Linux System Administration I (LPI-1)
$4.00 hrs lecture, $4.00 hrs lab
Units: 4.00
Advisory: CNET-146
Accepted For Credit: CSU
This course is intended for students who want to learn about the Linux operating system and prepare to pass the Linux+ certification exam from CompTIA (Powered by LPI). The course provides comprehensive coverage of topics related to Linux certification, including Linux distributions, installation, administration, X-Windows, networking, and security. (GC)

CNET-142 Introduction to Programming with Python
$4.00 hrs lecture, $4.00 hrs lab
Units: 4.00
Accepted For Credit: CSU & UC
This course is an introduction to computer programming using Python programming language. Using the popular Python programming language, students learn the use of basic Python constructs and standard libraries to develop software application programs. (GC)

CNET-146 Introduction to UNIX/Linux
36.00 hrs lecture, $4.00 hrs lab
Units: 3.00
Cross-referenced Course: CS-146
Accepted For Credit: CSU
This lecture/lab course introduces functions and features of the UNIX/Linux operating system, including origin and evolution; hardware and software; both command-line and graphical user interface; files and file system structure; system services; processes; background processing; scheduling; file security; the vi editor; file sharing; and redirection and piping. Students are also introduced to shell programming and a variety of UNIX/Linux command-line and graphical tools. (GR)

CNET-147 UNIX/Linux Shell Scripting
$4.00 hrs lecture, $4.00 hrs lab
Units: 4.00
Cross-referenced Course: CS-147
Advisory: CS-102
Accepted For Credit: CSU & UC
This course introduces a variety of the tools and concepts used while working with a UNIX/Linux-based computer system. The course introduces UNIX shells, comparing and contrasting the major ones. Students will learn to write shell scripts using basic commands, regular expressions, vi, sed, and awk. They will then use those tools to write scripts for various shells such as the Bourne, C, Korn, and Bash shells. Other scripting tools such as Perl and Python will also be explored. Students will write shell script programs to exercise their understanding of tools and concepts. This course will be taught using a combination of lectures, demonstrations, discussions, and hands-on labs. (GR)

CNET-152 Data Communications
36.00 hrs lecture
Units: 2.00
Cross-referenced Course: CS-152
Accepted For Credit: CSU
This course provides students with an overview of the concepts and fundamentals of data communication and computer networks. Topics to be covered include data communication concepts and techniques in a layered network architecture; communications switching and routing; types of communication; network congestion; network topologies; network configuration and management; network model components; layered network models (OSI reference model, TCP/IP networking architecture) and their protocols; and various types of networks (LAN, MAN, WAN, and Wireless networks) and their protocols. (GC)

CNET-155A Introduction to Networks (CCNA1)
18.00 hrs lecture, 126.00 hrs lab
Units: 3.00
Advisory: CNET-105
Accepted For Credit: CSU
This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The course uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. At the end of the course, students build simple LAN topologies by applying basic principles of cabling; perform basic configurations of network devices, including routers and switches; and implement IP addressing schemes. This course is preparation for the CCENT and CCNA certification exams. (GC) C-ID ITIS 150

CNET-155B Routing and Switching Essentials (CCNA2)
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Advisory: CNET-155A
Accepted For Credit: CSU
This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement DHCP and DNS operations in a network. (GC)

CNET-156A Scaling Networks (CCNA3)
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Advisory: CNET-155A and CNET-155B
Accepted For Credit: CSU
This is the third of the four courses that prepares students for the Cisco Certified Networking Associate (CCNA) certification. This course describes the architecture, components, operations of routers, and switches in a large and complex network. Students learn how to configure routers and switches for advanced functionality. By the end of the course students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement DHCP and DNS operations in a network. (GC)
CNET-156B Connecting Networks (CCNA4)  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Advisory: CNET-155A, CNET-155B, and CNET-156A  
Accepted For Credit: CSU  
This is the last of four courses that prepares students for the Cisco Certified Networking Associate (CCNA) certification. This course discusses the WAN technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students also develop the knowledge and skills needed to implement IPsec and virtual private network (VPN) operations in a complex network. (GC)

CNET-160A MS Client Operating Systems  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
This course provides students with the knowledge and skills necessary to set up and support the current Windows Client Operating System and prepare for the corresponding Microsoft Windows 7 Solutions Associate (MCSA) exam. Students will get practical experience installing, administering, and troubleshooting this next-generation desktop environment. (GR)

CNET-160B Microsoft Desktop Support Technician  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Advisory: CNET-160A  
Accepted For Credit: CSU  
This course is designed for Information Technology (IT) professionals who have experience with Windows XP and Windows Vista who work as Windows 7 Enterprise Desktop Support Technicians (EDSTs) in Tier 2 support environments. The goal of this training is to enable these individuals to support the Windows 7 operating system and solve technical troubleshooting problems in a Windows 7 and Windows Server 2008 R2 networking environment. (GC)

CNET-162 Windows Server Installation and Configuration Administration  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Advisory: CNET-105 and CNET-160A  
Accepted For Credit: CSU  
This course prepares students as system administrators who will be responsible for installing, configuring, managing, supporting a secure network infrastructure, and implementing fault tolerant storage technologies that use the Microsoft Windows Server products. This course helps students prepare for the corresponding Microsoft Exam 70-410. (GC)

CNET-164 Windows Server Administration  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
This course prepares students to deploy and maintain Windows 2012 server images, configure DNS, maintain Active Directory, configure Remote Access, implement Network Access Protection, and configure encryption and advanced auditing. Students will get experience implementing a Group Policy infrastructure; managing User Desktops with Group Policy; configuring and troubleshooting Remote Access; installing, configuring, and troubleshooting Network Policy Server (NPS) role; and implementing Network Access Protection (NAP). (GC)

CNET-166 Windows Server - Advanced Services  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Advisory: CNET-156 and CNET-164  
Accepted For Credit: CSU  
This course covers advanced configuration of services necessary to deploy, manage, and maintain a Windows Server 2012 infrastructure, such as advanced networking services, file services, Active Directory Domain Services (AD DS), identity management, rights management, Federated services, network load balancing, failover clustering, business continuity and disaster recovery. (GC)

CNET-170 Network Security (Security+)  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Accepted For Credit: CSU  
This course provides an in-depth study of Network Security fundamentals and provides a comprehensive overview of network security. Students will gain the knowledge and skills required to identify risk and participate in risk mitigation activities; provide infrastructure, application, operational, and information security; apply security controls to maintain confidentiality, integrity, and availability; identify appropriate technologies and products; and operate with an awareness of applicable policies, laws, and regulations. This course provides the foundation for students preparing to take the CompTIA Security+ certification exam. (GC)

CNET-172 CCNA Security  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
CCNA Security equips students with the knowledge and skills needed to prepare for entry-level security specialist careers. CCNA Security aims to develop an in-depth understanding of network security principles as well as the tools and configurations required to secure a network. The course prepares students for the Cisco CCNA Security certification exam. (GC)

CNET-173 Ethical Hacking  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: CNET-155A and CNET-170  
Accepted For Credit: CSU  
This course introduces the network security specialist to the various methodologies for attacking a network. Students will be introduced to the concepts, principles, and techniques, supplemented by hands-on exercises, for attacking and disabling a network. These methodologies are presented within the context of properly securing the network. The course will emphasize network attack methodologies with the emphasis on student use of network attack techniques and tools and appropriate defenses and countermeasures. Students will receive course content information through a variety of methods; lecture and demonstration of hacking tools will be used in addition to a virtual environment. Students will receive a hands-on practical approach in penetration testing measures and ethical hacking. (GC)
CNET-174  Computer Forensics
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Advisory: CNET-170 and CNET-173
Accepted For Credit: CSU

This is an introductory course in Computer Forensics. Forensics Computing, Digital Forensics, or Computer Forensics is the name for a newly emerging field of study and practice that incorporates many areas of expertise. Some of these areas have been called network security, intrusion detection, incident response, infrastructure protection, disaster recovery, continuity planning, software engineering, cyber security, and computer crime investigation. It is an area of practice in public law enforcement at the federal, state, and local levels that deals with cyber crime, cyber vandalism, cyber predators, and cyber terrorism. In the private sector it deals with critical infrastructure such as business, hospitals, utilities transportation, finance, education, and other key institutions. (GC)

CNET-175  Cloud Security Fundamentals
$4.00 hrs lecture, $4.00 hrs lab
Units: 4.00
Accepted For Credit: CSU

Cloud computing, the cloud, is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources and applications over the Internet. In this course students will explore and understand how to secure a cloud environment. Students will learn about different cloud environments such as Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS), as well as learn the history of cloud computing and how cloud computing is being used today. (GC)

NONCREDIT CNET COURSES

CNET-901A  Introduction to Computers and Computer Literacy
$4.00 hrs lecture
Units: 0.00

This noncredit course is a general introduction to the area of computers and computer literacy. This course will cover a broad overview including topics such as hardware, software, and computer systems, and technology vocabulary. This course is designed for anyone who wants to obtain and retain employment in any industry. Not applicable to associate degree. Repeatable = Unlimited times (NG)

CNET-901B  Introduction to Computer Systems and Computer Support
$4.00 hrs lecture
Units: 0.00

This noncredit course is a general introduction to computer hardware and software; how to build a computer; and how to troubleshoot computer issues. Not applicable to associate degree. Repeatable = Unlimited times (NG)

Consumer and Family Sciences (CFS)

Division: Social Sciences
Academic Dean: Ghada Al-Masri
Division Administrative Assistant: Sheila Holland
Location: Fremont campus, Room 3316J
Phone number: 510-659-6216

This department offers Special Projects courses (CAOT-201 and CAOT-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

CFS-109  Nutrition
$4.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC

This course studies the concepts and applications of nutrition in health and disease. Essential nutrients and their functions, food sources, requirements, digestion, absorption, and metabolism are covered. This course is recommended for pre-nursing and other health majors. (GC)

Deaf Preparatory Program (DEAF)

Division: Deaf Studies
Interim Academic Dean: Robert Gabriel
Division Administrative Assistant: Nora Chopelas
Location: Fremont campus, Room 6203
Phone number: 510-659-6269

This department offers Special Projects courses (DEAF-201 and DEAF-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

DEAF-120A  Developing Writing and Grammar Skills I
$4.00 hrs lecture
Units: 3.00
Advisory: ASL fluency

This is the first of two courses (DEAF-120A and DEAF-120B) designed for students who wish to develop their English grammar and writing skills through practice and application. Students will have opportunities to apply basic grammar rules by completing interactive exercises, studying sentence parts, and writing simple sentences. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-120B  Developing Writing and Grammar Skills II
$4.00 hrs lecture
Units: 3.00
Advisory: DEAF-120A

This is the second of two courses (DEAF-120A and DEAF-120B) designed for students who wish to develop their English grammar and writing skills through practice and application. Students will have opportunities to apply basic grammar rules by completing interactive exercises, studying sentence construction, and writing sentences and paragraphs of increasing complexity. Taught in ASL. Not applicable to associate degree. (GR)
DEAF-121A Building Writing and Grammar Skills I
54.00 hrs lecture
Units: 3.00
This course is the first of two courses (DEAF-121A and DEAF-121B) designed for Deaf/Hard-of-Hearing students who wish to improve their grammar skills through practice and application at the high-beginning ESL level. Students will learn grammar rules through interactive exercises, studying sentence structure, performing error analysis, and writing sentences and paragraphs. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-121B Building Writing and Grammar Skills II
54.00 hrs lecture
Units: 3.00
Advisory: DEAF-121A
This course is the second of two courses (DEAF-121A and DEAF-121B) designed for Deaf/Hard-of-Hearing students who wish to further develop their grammar skills at the low-intermediate ESL level through practice and application. Students will apply grammar rules through interactive exercises, studying sentence structure, performing error analysis, and writing sentences and paragraphs of increasing complexity. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-130A Reading and Vocabulary Development I
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
This course is the first of two courses designed for students who wish to develop basic vocabulary and reading skills. Students discover the meanings of new vocabulary and develop basic reading skills through interactive exercises, examining the structure of basic reading passages, and making connections between the content and their own experiences. Taught in ASL. Not applicable to associate degree. (GC)

DEAF-130B Reading and Vocabulary Development II
54.00 hrs lecture
Units: 3.00
Advisory: DEAF-130A and ASL fluency
This course is the second of two courses designed for students who wish to develop basic vocabulary and reading skills. Students develop and strengthen vocabulary and basic reading skills through interactive exercises, examining the structure of reading passages, and making connections between the content and their own experiences. Taught in ASL. Not applicable to associate degree. (GC)

DEAF-131A Reading and Vocabulary Building I
54.00 hrs lecture
Units: 3.00
This course is the first of two courses designed for Deaf and Hard-of-Hearing students who wish to strengthen vocabulary, reading, writing, and critical thinking skills through practical application of these skills in realistic situations. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-131B Reading and Vocabulary Building II
54.00 hrs lecture
Units: 3.00
This course is the second of two courses designed for Deaf and Hard-of-Hearing students who wish to strengthen vocabulary, reading, writing, and critical thinking skills through practical application of these skills in realistic situations. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-152RW Fundamentals of Reading and Writing I
90.00 hrs lecture
Units: 5.00
Corequisite: DEAF-152RWX
This course is the first of four intensive reading and writing courses designed to prepare students with good academic potential for college-level coursework. The course introduces the fundamentals of paragraph development, reading critically, and natural English expression. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-152RWX Fundamentals of Reading and Writing I Supplement
36.00 hrs lecture
Units: 2.00
Corequisite: DEAF-152RW
This supplemental course for DEAF-152RW is designed to provide additional instruction and exposure to the skills used in paragraph development, critical reading, and grammar. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-157A Fundamentals of English Composition I
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
This course is the first of two intermediate ESL courses with emphasis on fundamental English composition skills. After studying a variety of model paragraphs, students are guided through the process of planning, composing, and revising their own writings. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-157B Fundamentals of English Composition II
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
This course is the second of two intermediate ESL courses with emphasis on fundamental English composition skills. After studying a variety of model writings, students are guided through the process of planning, composing, and revising their own paragraphs and essays. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-159A Fundamentals of College Reading I
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL fluency
DEAF-159A is the first of two courses with an emphasis on fundamental reading and study techniques. Students learn to analyze a variety of printed materials including paragraphs, textbook passages, and news articles. The course is designed to introduce students to the reading process and academic study skills. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-159B Fundamentals of College Reading II
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
DEAF-159B is the second of two courses with an emphasis on fundamental reading and study techniques. Students learn to analyze a variety of printed materials including paragraphs, textbook passages, and news articles. The course is designed to guide students through the reading process and the development of academic study skills. Taught in ASL. Not applicable to associate degree. (GR)
DEAF-160A  Personal and Social Awareness I  
36.00 hrs lecture  
Units: 2.00  
Advisory: ASL fluency  
This course is designed to provide Deaf and Hard-of-Hearing students with opportunities to explore personal, social, academic, and career aspirations. Taught in ASL. Not applicable to associate degree. (GR)  

DEAF-160B  Personal and Social Awareness II  
36.00 hrs lecture  
Units: 2.00  
Prerequisite: DEAF-160A  
This course is a continuation of DEAF-160A and is designed to help Deaf and Hard-of-Hearing students explore issues relevant to college life. Taught in ASL. Not applicable to associate degree. (GR)  

DEAF-161  Introduction to the Deaf Community  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ASL fluency  
This is a basic course on the culture of American Deaf people. Cultural norms of Deaf people are examined, current issues within the Deaf community are discussed, and community resources are presented. Taught in ASL. Not applicable to associate degree. (GR)  

DEAF-162RW  Fundamentals of Reading and Writing II  
90.00 hrs lecture  
Units: 5.00  
Corequisite: DEAF-162RWX  
This course is the second of four intensive reading and writing courses designed to prepare students with good academic potential for college-level coursework. The course introduces the fundamentals of essay development, and emphasizes reading critically and natural English expression. Taught in ASL. Not applicable to associate degree. (GR)  

DEAF-162RWX  Fundamentals of Reading and Writing II Supplement  
36.00 hrs lecture  
Units: 2.00  
Corequisite: DEAF-162RW  
This supplemental course for DEAF-162RW is designed to provide additional instruction and exposure to the skills used in paragraph and essay development, critical reading, and grammar. Taught in ASL. Not applicable to associate degree. (GR)  

DEAF-167  Introduction to Adobe Photoshop, Illustrator, and InDesign  
$4.00 hrs lecture, 18.00 hrs lab  
Units: 4.00  
Advisory: ASL fluency, basic computer skills, DEAF-157A, DEAF-159A  
Introductory use of Adobe Photoshop, Adobe Illustrator, and Adobe InDesign. Taught in ASL. Not applicable to associate degree. (GR)  

DEAF-168  Introduction to Digital Video Production  
$4.00 hrs lecture, 18.00 hrs lab  
Units: 4.00  
Advisory: ASL fluency, basic computer skills, DEAF-157A, DEAF-159A  
This course is an introduction to digital video media production. The course will combine demonstrations, hands-on technical workshops, discussion, and critiques. Topics include pre-production, production, and post-production in the movie-making process. Taught in ASL. Not applicable to associate degree. (GR)  

DEAF-172RW  College Reading and Writing Essentials I  
90.00 hrs lecture  
Units: 5.00  
Corequisite: DEAF-172RWX  
This course is the third of four intensive reading and writing courses designed to prepare students with strong academic potential for college-level coursework. The course introduces the fundamentals of documented essay writing, and emphasizes reading critically and natural English expression. Taught in ASL. Not applicable to associate degree. (GR)  

DEAF-172RWX  College Reading and Writing Essentials I Supplement  
36.00 hrs lecture  
Units: 2.00  
Corequisite: DEAF-172RW  
This supplemental course for DEAF-172RW is designed to provide additional instruction and exposure to the skills used in documented essay development, critical reading, and grammar. Taught in ASL. Not applicable to associate degree. (GR)  

DEAF-175A  IUPP Grammar I  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ASL fluency  
This course is the first of a two-semester English grammar series designed for students who have an intermediate to advanced ESL knowledge of English sentence structure but who wish to strengthen their grammar and other language skills. Taught in ASL. Not applicable to associate degree. (GR)  

DEAF-175B  IUPP Grammar II  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ASL fluency  
This course is the second of a two-semester English grammar series designed for students who have an intermediate to advanced ESL knowledge of English sentence structure but who wish to further strengthen and refine their grammar and other language skills. Taught in ASL. Not applicable to associate degree. (GC)  

DEAF-182RW  College Reading and Writing Essentials II  
90.00 hrs lecture  
Units: 5.00  
Corequisite: DEAF-182RWX  
This course is the fourth of four intensive reading and writing courses designed to prepare students with strong academic potential for college-level coursework. The course introduces the fundamentals of writing a research paper, and emphasizes reading critically and natural English expression. Taught in ASL. Not applicable to associate degree. (GR)  

DEAF-182RWX  College Reading and Writing Essentials II Supplement  
36.00 hrs lecture  
Units: 2.00  
Corequisite: DEAF-182RW  
This supplemental course for DEAF-182RW is designed to provide additional instruction and exposure to the skills used in documented essay writing, development of a research paper, critical reading, and grammar. Taught in ASL. Not applicable to associate degree. (GR)
DEAF-188A  Intensive University Preparation: Academic Writing I  
72.00 hrs lecture  
Units: 4.00  
Advisory: ASL fluency  
This course is the first course in a two-semester program in writing with an emphasis on composition, critical reading skills, and the development of natural English expression. This course reviews the fundamentals of paragraph development and focuses on reading critically and writing well-developed and well-organized paragraphs and essays. The course is designed to prepare students with strong academic potential for college-level English composition and academic coursework. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-188B  Intensive University Preparation: Academic Writing II  
72.00 hrs lecture  
Units: 4.00  
Advisory: ASL fluency  
This course is the second course in a two-semester program in writing with an emphasis on composition, critical reading skills, and the development of natural English expression. This course reviews the fundamentals of essay development and focuses on reading critically and writing well-developed and well-organized paragraphs and essays. The course is designed to prepare students who are fluent in ASL for college-level English composition and academic coursework. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-189A  Intensive University Preparation: Academic Reading I  
54.00 hrs lecture  
Units: 3.00  
Advisory: ASL fluency  
DEAF-189A is the first course of a two-semester academic reading program. This course provides an introduction to reading and study techniques. Students learn to analyze, annotate, and summarize a variety of printed materials including essays, news articles, and textbook chapters. The course is designed to prepare students for college-level coursework. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-189B  Intensive University Preparation: Academic Reading II  
54.00 hrs lecture  
Units: 3.00  
Advisory: ASL fluency  
DEAF-189B is the second course of a two-semester reading program. This course focuses on strengthening reading and research skills. Students analyze, annotate, and summarize readings of increasing length and complexity. The course is designed to prepare students for college-level coursework. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-191  Human Potential Seminar  
36.00 hrs lecture  
Units: 2.00  
This course is specifically designed to help support the personal growth needs of Deaf and Hard-of-Hearing students finding their place as Deaf adults in a predominately hearing society. Emphasis will be on issues encountered in everyday life. Group and individual activities will encourage self-exploration, awareness, values clarification, conscious choice, decision making, and interpersonal communication. Taught in ASL. Not applicable to associate degree. (GR)

DEAF-311  Introduction to American Deaf Culture  
$4.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B and ENGL-163; ASL fluency  
Accepted For Credit: CSU; Gallaudet  
This course introduces American Deaf culture with historical and cultural overview of the American Deaf community and its language, American Sign Language (ASL). Fundamental sociological and anthropological theories will be discussed. Students will be given an opportunity to study and understand minority group dynamics, attitudes, and behavior characteristics of the oppressed and oppressor people, and the liberation movements. Analysis of the relationship of ASL to the history of American Deaf community will be conducted. Taught in ASL. (GC)

DEAF-312  Linguistics of ASL  
$4.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B and ENGL-163; ASL fluency  
Accepted For Credit: CSU  
This course is an introduction to the language of American Deaf people. Phonology, morphology, grammar, and semantics of American Sign Language are covered. Taught in ASL. (GR)

DEAF-330  Deaf Education  
$4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: ASL-140  
Advisory: Eligible for ENGL-151B and ENGL-163; ASL fluency  
Accepted For Credit: CSU  
This course has been designed to provide the student with a general orientation to Deaf education. The course provides an overview of the historical, philosophical, and social aspects of Deaf education. In addition, an orientation to problems, issues, research, legislation, and current trends in the field of education of the Deaf and Hard-of-Hearing students is provided. (GR)

DEAF-331  Counseling the Deaf  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-151B and ENGL-163; ASL fluency  
Accepted For Credit: CSU  
This course is designed to provide students with skills that are needed to work with Deaf and Hard-of-Hearing students in a school setting. Taught in ASL. (GR)

DEAF-332  Child Development and the Deaf Experience  
$4.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B and ENGL-163; ASL fluency  
Accepted For Credit: CSU  
This course provides students with an overview of child development theories as they relate to the Deaf experience. Taught in ASL. (GR)
### Early Childhood Studies (ECS)

**Division:** Social Sciences  
**Academic Dean:** Ghada Al-Masri  
**Division Administrative Assistant:** Sheila Holland  
**Location:** Fremont campus, Room 3316J  
**Phone number:** 510-659-6216

This department offers Special Projects courses (ECS-201, ECS-202, and ECS-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Units</th>
<th>Advisory</th>
<th>Accepted For Credit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECS-300</td>
<td>Principles and Practices of Teaching Young Children</td>
<td>54.00</td>
<td>3.00</td>
<td>ENGL-101A</td>
<td>CSU</td>
<td>This course includes historical context and theoretical perspectives of developmentally appropriate practice in early care and education. The course examines the role of the early childhood educator; and identification of best practices for environmental design, curriculum, and teaching strategies. Teacher/child relationships, professional ethics, career pathways, and professional standards are also explored. (GR) C-ID ECE 120</td>
</tr>
<tr>
<td>ECS-301</td>
<td>Childhood Growth and Development</td>
<td>54.00</td>
<td>3.00</td>
<td>ENGL-101A</td>
<td>CSU &amp; UC</td>
<td>This course examines the major physical, cognitive, social, and emotional developmental milestones for children from conception through adolescence. The emphasis is on interactions between maturational processes and environmental factors. Students observe children, evaluate individual differences, and analyze characteristics of development at various stages according to developmental theories. (GR) C-ID CDEV 100</td>
</tr>
<tr>
<td>ECS-302</td>
<td>Introduction to Curriculum</td>
<td>72.00</td>
<td>4.00</td>
<td>ENGL-101A</td>
<td>CSU</td>
<td>This course presents developmentally appropriate curriculum and environments for young children. It explores teaching strategies and curriculum development based on theoretical frameworks, observation, and assessment. The course emphasizes the teacher's role in supporting development and learning across the curriculum, including all content areas. (GR) C-ID ECE 130</td>
</tr>
<tr>
<td>ECS-303</td>
<td>Child, Family, and Community</td>
<td>54.00</td>
<td>3.00</td>
<td>ENGL-101A</td>
<td>CSU</td>
<td>This course covers the processes of socialization focusing on the interrelationship of family, school, and community. The course examines the influence of multiple societal contexts, and explores the role of collaboration between family, community, and schools in supporting children's development. (GR) C-ID CDEV 110</td>
</tr>
<tr>
<td>ECS-304</td>
<td>Observation and Assessment</td>
<td>54.00</td>
<td>4.00</td>
<td>ENGL-101A</td>
<td>CSU</td>
<td>This course includes the appropriate use of assessment and observation tools and strategies to document young children's development and learning. This course emphasizes the use of findings to inform and plan learning environments and experiences. Recording strategies, rating systems, portfolios, and multiple assessment tools are explored, along with strategies for collaboration with families and professionals. (GR) C-ID ECE 200</td>
</tr>
<tr>
<td>ECS-305</td>
<td>Health, Safety, and Nutrition</td>
<td>54.00</td>
<td>3.00</td>
<td>ENGL-101A</td>
<td>CSU</td>
<td>Laws, regulations, standards, policies, procedures, and best practices related to health, safety, and nutrition in early childhood settings are covered in this course. The course includes prevention strategies, nutrition, and meal planning for various ages, and planning educational experiences integrated into daily routines designed to teach children positive health, safety, and nutrition habits. (GR) C-ID ECE 220</td>
</tr>
<tr>
<td>ECS-306</td>
<td>Guidance and Discipline of Young Children</td>
<td>54.00</td>
<td>3.00</td>
<td>ENGL-101A</td>
<td>CSU</td>
<td>The principle of guidance and positive discipline based on contemporary research and child development is discussed in this course. Application of the principles of effective communication; understanding child development and behavior; appropriate limits and rules; and structuring problem solving and consequences are discussed. This course is appropriate for teachers, parents, and others working with children. (GC)</td>
</tr>
</tbody>
</table>
ECS-307A4  Practicum - Field Experience
36.00 hrs lecture, 108.00 hrs lab
Units: 4.00
Prerequisite: ECS-300, ECS-301, ECS-302, and ECS-303
Advisory: ENGL-101A
Accepted For Credit: CSU
Under guided supervision, students utilize practical classroom experiences to make connections between theory and practice; develop professional behaviors; and build a comprehensive understanding of children and families. Reflective practice is emphasized as student teachers design, implement, and evaluate approaches, strategies, and techniques that promote development and learning. (GR)
C-ID ECE 210

ECS-307B4  Intermediate Practicum - Field Work
36.00 hrs lecture, 108.00 hrs lab
Units: 4.00
Prerequisite: ECS-307A4
Advisory: ECS-300 and ENGL-101A
Accepted For Credit: CSU
This course continues direct experience working with and observing young children. Students will plan, implement, and evaluate program components and activities for young children. Students must complete this course in the Ohlone Child Care Lab. Students will perform the competencies of a teacher. (GR)

ECS-307C4  Practicum - Field Experience
36.00 hrs lecture, 108.00 hrs lab
Units: 4.00
Prerequisite: ECS-307A4 and ECS-307B4
Advisory: ENGL-101A and ECS-300
Accepted For Credit: CSU
This course offers direct experience working with and observing young children. Students will be trained in the planning, implementing, and evaluating of program components and activities for young children. Students must complete this course in the Ohlone Child Care Lab. Students will perform the competencies of a Head Teacher/Site Director. (GR)

ECS-308  Administration I: Programs in Early Childhood Education
$4.00 hrs lecture
Units: 3.00
Advisory: ECS-300, ECS-301, ECS-302, and ENGL-101A
Accepted For Credit: CSU
This course is an introduction to the administration of early childhood programs. The course covers program types, budget, management, regulations, laws, and the development and implementation of policies and procedures. The course also examines administrative tools, philosophies, and techniques needed to organize, open, and operate an early care and education program. (GR)

ECS-309  Teaching in a Diverse Society
$4.00 hrs lecture
Units: 3.00
Advisory: ECS-300, ENGL-101A
Accepted For Credit: CSU
This course examines the impact of various societal influences on the development of children’s social identity. The course covers developmentally appropriate, inclusive, and anti-bias approaches. Self-examination and reflection on issues related to social identity, stereotypes, and bias are emphasized. (GR)
C-ID ECE 230

ECS-310  Music and Movement Curriculum for Young Children
$4.00 hrs lecture
Units: 3.00
Advisory: ECS-300, ECS-301, ECS-302, and ENGL-101A
Accepted For Credit: CSU
This course provides a survey of music, materials, and movement activities for young children (2-10 years). Students learn effective techniques for using songs, rhythm, instruments, creative dance, and games. The use of a variety of musical media and props will be demonstrated. (GR)

ECS-311  Art for the Young Child
$4.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A; ECS-300, ECS-301, and ECS-302
Accepted For Credit: CSU
This course includes practice in using age-appropriate methods with commonly available creative art media for children of various developmental stages, infancy through eight years old. Students learn to make, collect, and use various materials to develop an understanding of how art expression and skills change as children mature. Evaluation and appreciation of art activities as opportunities for self-expression and sensory stimulation will be explored. (GR)

ECS-312  The Development of Literacy in Early Childhood Education
$4.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU
This course provides guidelines for preparing math and science curriculum for the young child. Math and science interrelationships will be explored, as well as gender differences, current research, and the use of hands-on approach. (GR)

ECS-313  Science and Math Curriculum for Young Children
$4.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A and ECS-301
Accepted For Credit: CSU
This course provides guidelines for preparing math and science curriculum for the young child. Math and science interrelationships will be explored, as well as gender differences, current research, and the use of hands-on approach. (GR)

ECS-314  Literature for the Young Child
$4.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A and ECS-312
Accepted For Credit: CSU
This course examines in-depth experiences with literature for children ages 0-8. The course introduces students to the development of reading in young children. Students develop the extension of literature into other curriculum areas. (GR)

ECS-316  Curriculum and Strategies for Children with Special Needs
$4.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU
This course covers curriculum and intervention strategies for working with children with special needs in partnership with their families. The course focuses on the use of observation and assessment in meeting the individualized needs of children in inclusive and natural environments. The course includes the role of the teacher as a professional working with families, collaboration with interdisciplinary teams, and cultural competence. (GR)
ECS-317  Infant and Toddler Development  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ECS-301 and ENGL-101A  
Accepted For Credit: CSU  
This course provides a study of infants and toddlers from pre-conception to age three, including physical, cognitive, language, social, and emotional growth and development. The course applies theoretical frameworks to interpret behavior and interactions between heredity and environment, and emphasizes the role of family and relationships in development. (GR)

ECS-320  Introduction to Family Child Care Homes  
18.00 hrs lecture  
Units: 1.00  
Advisory: ENGL-101A  
This course covers the operation of child care in a home setting. Topics include home setup; business practices and policies; program planning; parent relations; and communications. California licensing regulations are covered. (CR)

ECS-321  Administration II: Personnel and Leadership in Early Childhood Education  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ECS-300, ECS-308, ENGL-101A  
Accepted For Credit: CSU  
This course covers effective strategies for personnel management and leadership in early care and education settings. Included in the course are legal and ethical responsibilities, supervision techniques, professional development, and reflective practices for a diverse and inclusive early care and education program. (GR)

ECS-322  Adult Supervision and Mentoring in Early Care and Education Childhood Programs  
36.00 hrs lecture  
Units: 2.00  
Advisory: ECS-308 and ENGL-101A  
Accepted For Credit: CSU  
Methods and principles of supervising student teachers, volunteers, staff, and other adults in early care and education settings are covered in this course. Emphasis is on the roles and development of early childhood professionals as mentors and leaders. (GR)

ECS-323  Care and Education for Infants and Toddlers  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ECS-301, ECS-317, and ENGL-101A  
Accepted For Credit: CSU  
This course applies current theory and research to the care and education of infants and toddlers in group settings. The coursework examines essential policies, principles, and practices that lead to quality care and developmentally appropriate curriculum for children birth to 36 months. (GR)

ECS-324  Parenting  
$4.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B  
Accepted For Credit: CSU  
This introductory course is an exploration of the role and relationships involved in parenting. The course explores the historical context and changes in perceptions and responsibilities assigned to parents in American society. Topics include history of parenting; parenting styles; beliefs and values; skills and methods; relationships; and basic child development. (GR)

ECS-325A  Workshop Series for Parents and Teachers  
9.00 hrs lecture  
Units: 0.50  
This course is a workshop for parents and teachers covering specific topics in the field of Early Childhood Studies. The theme and content varies and is determined by the Early Childhood Studies instructors. Not applicable to associate degree. (CR)

ECS-327  School Age Child Development  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ECS-302, ENGL-101A  
Accepted For Credit: CSU  
This course is an examination of the developing child 5-12 years of age. The course focuses on the developmental characteristics: physical, socio-emotional, cognitive, creative, and cultural while examining teaching emphasis for this age group. (GR)

ECS-328  Curriculum for the School Age Child  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ECS-301, ECS-302, ENGL-101A  
Accepted For Credit: CSU  
This course studies the fundamentals of planning, implementing, and evaluating curriculum for programs serving school-age children and their families. The emphasis is on developing and providing age appropriate activities, environment, and relationships in the context of an integrated and active curriculum. (GR)

ECS-330  Second Helping for Family Childcare Providers  
36.00 hrs lecture  
Units: 2.00  
Prerequisite: ECS-320 and 18 months experience in a licensed program  
This is the second course for family childcare providers. It covers the role of the provider, the task of managing, relationships between care givers and parents, and providing environments for children. (GC)

---

**Did you know???

$1.6 million is the average lifetime earnings of a graduate with an associate’s degree, $400,000 more than for a high school graduate.

Source: Community College League of California**
Engineering (ENGI)

Division: Science, Engineering, and Mathematics
Academic Dean: Loretta Silverman
Division Administrative Assistant: Irene Benavidez
Location: Fremont campus, Room 1301L
Phone number: 510-659-6191

This department offers Special Projects courses (ENGI-202 and ENGI-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

ENGI-101 Introduction to Engineering
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This course explores the field of engineering and its different branches. The course provides hands-on design projects including experimentation, team work, ethics, and the application of basic scientific principles to practical situations. (GR)

ENGI-111 Programming and Problem-Solving in MATLAB
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Prerequisite: MATH-101A
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course utilizes the MATLAB environment to provide students with a working knowledge of computer-based, problem-solving methods relevant to science and engineering. The course introduces the fundamentals of procedural and object-oriented programming, numerical analysis, and data structures. Examples and assignments in the course are drawn from practical applications in engineering, physics, and mathematics. (GR) C-ID ENGR 220

ENGI-114 How Technology Works
4.00 hrs lecture, 4.00 hrs lab
Units: 4.00
Cross-referenced Course: CNET-114
Accepted For Credit: CSU
This course is intended for students of all disciplines who are interested in how everyday things work. This course is an introduction to some of the fundamental science concepts underpinning high technology, emphasizing everyday devices and practical experience, for the development of scientific and computer literacy. Students will experiment with technology to discover principles of science. Concepts such as force, work, energy, power, liquids and gasses, heat transfer, electricity, magnetism, electronics, and light are explored through experimentation and observation. Students will experience through class demonstrations and hands-on laboratories the concepts presented by the instructor. Phenomena such as how computers convert data, iPods transmit sound, air conditioners cool a room, solar heating panels capture heat, and how microwaves cook food are discussed. A laboratory session is included which offers students a chance to do experiments. A field trip to local tech industry displays is required. (GC)

ENGI-115 Engineering Graphics and Design
4.00 hrs lecture, 4.00 hrs lab
Units: 4.00
Advisory: MATH-151
Accepted For Credit: CSU & UC
This course covers the principles of graphic expression by means of technical sketching and computer aided drafting using AutoCAD. (GR)

ENGI-120 Engineering Mechanics - Statics
4.00 hrs lecture
Units: 3.00
Prerequisite: MATH-101B and PHYS-140
Accepted For Credit: CSU & UC
This course is a study of force systems and equilibrium in two- and three-dimensional structures, distributed forces, friction, and virtual work. (GR)

ENGI-130 Electric Circuit Analysis
4.00 hrs lecture, 4.00 hrs lab
Units: 4.00
Prerequisite: MATH-101B and PHYS-141
Accepted For Credit: CSU & UC
This course is a study of DC and AC linear circuits and transient and steady state analysis. Experimental techniques, instrumentation, and circuit simulation will be covered in the lab. (GR)

ENGI-135 Introduction to Robotics and Automated Systems
4.00 hrs lecture, 4.00 hrs lab
Units: 4.00
Advisory: Eligible for ENGL-151B, ENGL-163, MATH-151
Accepted For Credit: CSU
Students who take this course will understand how scientific innovations like robots and automated systems can affect their lives, either directly or indirectly. This course describes the functional hardware and software components of robotic and automated systems. Students will experience how scientific principles and methods are applied in designing and building robotic and automated systems. (GC)
ENGI-140  Materials Engineering  
$4.00$ hrs lecture, $54.00$ hrs lab  
Units: $4.00$  
Prerequisite: CHEM-101A and PHYS-140  
Accepted For Credit: CSU & UC  
This course covers atomic and crystal structures; imperfections; diffusion and relation between microstructure and the properties of engineering materials such as metals, polymers, ceramics, and composites; phase equilibrium and transformations; mechanical, electrical, thermal, magnetic, and optical properties; corrosion and material degradation. (GR)

ENGI-150  Dynamics  
$4.00$ hrs lecture  
Units: $3.00$  
Prerequisite: ENGI-120  
Accepted For Credit: CSU & UC  
This course explores the fundamentals of kinematics and kinetics of particles and rigid bodies. Topics include kinematics of particle motion; Newton's second law, work-energy, and momentum methods; kinematics of planar motions of rigid bodies; work-energy and momentum principles for rigid body motion; and introduction to mechanical vibrations. (GR)

NONCREDIT ENGI COURSES

ENGI-915  Advanced AutoCAD  
$27.00$ hrs lecture, $27.00$ hrs lab  
Units: $0.00$  
Advisory: Fundamental knowledge of AutoCAD  
This noncredit course covers advanced topics in engineering design and computer aided drafting using AutoCAD. Topics include dynamic blocks; blocks with attributes; creating customized forms and title blocks; 3D modeling; solid modeling; surface modeling; working with layers; and working with object properties. Students work on architectural, mechanical, and civil projects. This course prepares students for the professional exam for Autodesk AutoCAD. It is strongly recommended that students have fundamental knowledge of AutoCAD such as 2D drawings and other familiarity with basic AutoCAD commands. Not applicable to associate degree. Repeatable = Unlimited times (NG)

ENGI-916  Introduction to SolidWorks  
$27.00$ hrs lecture, $27.00$ hrs lab  
Units: $0.00$  
This noncredit course provides an introduction to graphics and design using SolidWorks CAD software. Students learn to draw 2D and 3D objects, parts, and assemblies; and present professional drawings for manufacturing or 3D printing. Not applicable to associate degree. Repeatable = Unlimited times (NG)

Engineering Technology (ETEC)

Division: Science, Engineering, and Mathematics  
Academic Dean: Loretta Silverman  
Division Administrative Assistant: Irene Benavidez  
Location: Fremont campus, Room 1301L  
Phone number: 510-659-6191

ETEC-106  Electronics for Technology  
$36.00$ hrs lecture, $54.00$ hrs lab  
Units: $3.00$  
Advisory: MATH-151 and MATH-181  
Accepted For Credit: CSU  
This course is an introduction to electricity and electronic devices. Students will learn the basic theory of electricity and apply that knowledge to build, test, and troubleshoot electrical circuits. In the lab students will learn to operate the test and measurement instrumentation necessary to support construction of electrical circuits. (GR)

ETEC-107  Properties of Materials  
$18.00$ hrs lecture, $27.00$ hrs lab  
Units: $1.50$  
Accepted For Credit: CSU  
This course surveys materials, properties, and applications for technicians. Topics will include a brief introduction to the properties of metals, polymers, ceramics, and composites. (GC)

ETEC-110  Additive Manufacturing  
$18.00$ hrs lecture, $54.00$ hrs lab  
Units: $2.00$  
This is an introductory course into the world of additive manufacturing. Emphasis is given to the most common process in additive manufacturing technique such as 3-D printing of polymers. 3-D Laser Scanning and Laser Cutting is integrated to make the digital signature of parts. In addition to theoretical knowledge, students are expected to gain practical experience by manufacturing sample parts in the lab. The course integrates a project-based learning model which develops elements of creative thinking and problem solving used in prototype building and the manufacturing process. (GC)

ETEC-112  Manufacturing Processes  
$18.00$ hrs lecture, $54.00$ hrs lab  
Units: $2.00$  
This is an introductory course in manufacturing and manufacturing processes. This course exposes students to manufacturing of materials, mechanical properties, and processes involved in the industrial sector. Emphasis is given to processes which are more common in the industry, such as reverse engineering; rapid prototyping; plastics and composites; metal forming and generating tool paths; and casting. In addition to verbal understanding of the issues, mathematical models describing the processes of manufacturing are covered briefly in order for students to understand the relations between the parameters involved in the processes. In addition to theoretical knowledge, students are expected to gain practical experience by manufacturing sample parts in the lab. (GR)
ETEC-113  Safety in Industry  
18.00 hrs lecture  
Units: 1.00  
This course emphasizes CAL-OSHA (California General Industry Safety Orders) standards and benefits of accident prevention. Students gain an understanding of personal protective clothing and equipment; industrial housekeeping; and safety when handling and storing materials, tools, and equipment. The implications of accidents such as loss of productivity; morale; and real and intangible costs relating to accidents are also discussed. (GC)

ETEC-116  Computer Assisted Machining Programming  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Advisory: MATH-181  
Computer Assisted Machining Programming is a course that engages students with Machine Shop specific software programming topics. These topics include application of Computer Aided Manufacturing (CAM) systems for development of computer numerical control (CNC) programs for complex two- and three-axis machined parts. Use of 3-D graphics and part verification software systems are also explored. (GR)

ETEC-117  Fabrication Techniques  
27.00 hrs lab  
Units: 0.50  
This course provides laboratory experience in fabrication principles utilized in the electronics and computer technology fields. Topics included are familiarization and usage of hand tools; basic lathe and milling machine tools; sheet metal tools; soldering techniques; wire wrapping; drilling/tapping procedures; and fabricating enclosures to specs. Students learn to use vernier calipers; corner notchers; pan and brake; drill press; band saw; and belt sanders. Students complete lab projects to demonstrate their proficiency in basic fabrication techniques. (GC)

ETEC-121  Work-Based Project  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Advisory: ENGI-101 and ENGI-115  
The course utilizes industrial-level engineering technology based projects under the direction of faculty and/or industrial liaison representative. Students are provided the opportunity to demonstrate the full spectrum of their learning (including engineering design, prototyping, troubleshooting, problem solving, critical thinking, and effective technical communications) which facilitates their transition into industry. (GC)

ETEC-124  Introduction to Internet of Things  
18.00 hrs lecture, 36.00 hrs lab  
Units: 1.50  
Advisory: MATH-181  
This course explores Internet of Things (IoT) technologies with emphasis on manufacturing applications. Students learn about Industrial Internet of Things, Cloud Computing, and Smart Data. (GC)

ETEC-126  Industrial Internet of Things-Industry Standard 4.0  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: MATH-181  
This course explores smart production line technologies that constitute a smart factory. Students learn about Industry 4.0 architecture; Digitization and Smart Data; Smart Manufacturing Principles; Industry 4.0 Lean manufacturing; and the Internet of Things (IoT) as it applies to manufacturing. (GC)

---

**English (ENGL)**

Division: Language, Communication, and Academic Success  
Academic Dean: Mark Lieu  
Division Administrative Assistant: Dana Pope  
Location: Fremont campus, Room 3420K  
Phone number: 510-659-6173

This department offers Special Projects courses (ENGL-201, ENGL-202, and ENGL-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

**ENGL-101A**  Reading and Written Composition  
$4.00 hrs lecture, $4.00 hrs lab  
Units: 4.00  
Prerequisite: Placement; or ENGL-151RW; or ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course focuses on reading and writing of expository and argumentative works and introduction to research skills and documentation to develop the ability to think critically and advocate ideas forcefully and accurately. Students will increase practical fluency by developing sentence, paragraph, thesis, and essay writing skills. (GR) C-ID ENGL 100

**ENGL-101AX**  Reading and Written Composition Supplement  
36.00 hrs lecture  
Units: 2.00  
Corequisite: ENGL-101A  
This supplemental course for English 101A is intended to provide additional instruction in college-level reading, writing, and critical thinking. Not applicable to associate degree. (GR)

**ENGL-101B**  Reading and Composition (Introduction to Literature)  
72.00 hrs lecture  
Units: 4.00  
Prerequisite: ENGL-101A  
Accepted For Credit: CSU & UC  
Students will read and evaluate literature in a critical, logical way. The emphasis will be upon critical analysis of literary works (novels, short story, poetry, and drama) and upon the students’ development of an appreciation of literature. (GR) C-ID ENGL 120

**ENGL-101C**  Critical Thinking and Composition  
$4.00 hrs lecture  
Units: 3.00  
Prerequisite: ENGL-101A  
Accepted For Credit: CSU & UC  
Students will learn critical thinking skills and use them to read and evaluate essays in a precise, logical way. The emphasis will be upon critical analysis and upon the students’ development of effective, written arguments. (GR) C-ID ENGL 105

**ENGL-104**  The Short Story  
$4.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
Students will read and discuss a wide variety of short stories. The short story is seen as a reflection of historical and contemporary concerns, as a happy entertainment alternative to television, and as a traditional and experimental literary form. (GC)
ENGL-106  Reading Banned Books  
$4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: JOUR-106  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course provides a study of literature that has been banned or censored. (GR)

ENGL-107  Literature and Film  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
“Lights, camera, action!” Hundreds of works of literature have been made into films, with varying degrees of success. If you’ve ever been disappointed (or thrilled) by the film version of a book you’ve read, you know that film adaptations range from “two thumbs way up” to “had me gagging on my popcorn.” This course will examine the relationships between literature and film, comparing and contrasting the two media. (GC)

ENGL-109  The Graphic Novel  
$4.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course examines graphic novels and related literature genres about characters from various ethnic, cultural, socio-economic, historical, and geo-political backgrounds. These graphic novels will be analyzed with a focus on language, art, design, ideology, and content in order to explore the genre of the graphic novel as an art form as well as to recognize the undercurrent of themes running through this form of literature. Studying the artists’ works and examining the historical, social, psychological, and cultural forces shaping the literary and artistic form of the graphic novel will allow students to become aware of this genre of literature as a unique contribution to the study of literature and art. (GC)

ENGL-111A  Beginning Creative Writing  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course includes experimentation with creative principles such as fiction, non-fiction, drama, poetry, and a critical analysis of the student’s work. (GC) C-ID ENGL 200

ENGL-111B  Intermediate Creative Writing  
$4.00 hrs lecture  
Units: 3.00  
Prerequisite: ENGL-111A  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course provides students the opportunity to experiment with creative principles such as fiction, non-fiction, drama, and poetry, and provides a critical analysis of the student’s work. (GC)

ENGL-112  Modern Fiction  
$4.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
The themes of love and sexuality, family conflict, coming of age, and the individual in society are explored in the fiction of modern and contemporary writers. (GR)

ENGL-113  Poetry  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course examines traditional and contemporary poetry and poets in a critical and logical way which will lead to a greater understanding and appreciation of poetry. (GC)

ENGL-114  World Mythology  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course is a study of significant myths and legends with emphasis on Greek/Roman, Nordic (Norse), and another Indo-European mythological system. Students also study other mythological systems of various cultures through independent research. The focus of this course is on literature. (GR)

ENGL-115  Women in Literature  
$4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: WS-115  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
Students will read, discuss, and write about short stories, novels, poetry, drama, and essays of British and American women writers past and present. (GR)

ENGL-118  Introduction to Shakespeare  
$4.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course introduces the students to the Elizabethan era, to drama as a literary form, and to the plays and poems of William Shakespeare. (GC)
ENGL-120A  Survey of American Literature: Beginning to 1865  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ENGL-151B and ENGL-163; or ENGL-151RW  
Accepted For Credit: CSU & UC  
This course focuses on the literary productions of America from its beginning to 1865. Students will read and discuss American oral traditions, short stories, poetry, drama, and novels and will become familiar with great American writers. (GC) C-ID ENGL 130

ENGL-120B  Survey of American Literature: 1865 to Present  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ENGL-151B and ENGL-163; or ENGL-151RW  
Accepted For Credit: CSU & UC  
This course focuses on American literature from 1865 to the present: Transcendentalism, Modernism, and Postmodernism. Students will read and discuss classic American short stories, poetry, drama, and novels and will become familiar with great American writers. (GC)

ENGL-121  The Mystery: Unlocking Its Secrets  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
The course explores the mystery genre by introducing students to various works of past and contemporary British and American authors and by introducing students to the various sub-genres such as cozies, amateurs, police procedurals, forensics, and private investigators. (GC)

ENGL-122  Environmental Literature  
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course is a survey of environmental writing reflecting the changing relationship between humans and their environment through time. Readings will cover a range of eras and philosophies, including Native American creation tales; narratives from the Age of Conquest; poetry and fiction from the Romantic Era; early environmental essays from the 19th and 20th centuries; and current environmental writing. Students will read a variety of literary and non-fiction texts from Thoreau, Muir, Leopold, Stegner, Carson, Abbey, Pollan, and others. (GC)

ENGL-123  Contemporary World Literature  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: Eligible for ENGL-101A  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
Contemporary World Literature presents a contemporary overview of literature from most major cultures, continents, and literary traditions. The course explores short stories and excerpts from world-renowned authors on various themes and delves into the way different cultures and writers see their internal and external worlds in relation to their sense of self. The primary focus is on diverse and multicultural texts, with an emphasis on gender, post colonialism, memoir, magic realism, indigenous peoples, migrants, and self-reflection. Students are expected to do background research on the culture or theme of their interest. (GC)
ENGL-125A  English Literature: From the Middle Ages to the Restoration/18th Century  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ENGL-151B and ENGL-163; or ENGL-151RW  
Accepted For Credit: CSU & UC  
The course encompasses several revolutions in style and sensibility that have shaped English literature from Beowulf through the Middle Ages, the 16th century, the 17th century, and the Restoration/Early 18th century. (GR) C-ID ENGL 160

ENGL-125B  English Literature: From Romanticism to Modernism  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ENGL-151B and ENGL-163; or ENGL-151RW  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course encompasses several revolutions in style and sensibility that have shaped English literature from the Romantic nature poets like Wordsworth, Keats, and Shelley to Modernist writers like James Joyce, Virginia Woolf, and T.S. Eliot. (GR) C-ID ENGL 165

ENGL-127  Autobiography: Writing Journals and Memoirs  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU  
This is an autobiography and memoir course for those who wish to write about their personal and family experiences in journals and memoirs. The course encourages students to remember, consider, and write about their own and their family’s past and present; to learn basic research techniques; to organize their material; and to write effectively. Students will also discuss extracts from published autobiographical works. (GC)

ENGL-129  Psychology and Literature  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU  
This course focuses on a variety of major psychological issues as they emerge from the close study of character, conflict, and motivation in literature. Common themes will include attachment and identity, childhood, family conflict, sexuality and romantic love, stages of adulthood, and awareness of death. Major psychological theorists such as Freud, Piaget, and Erikson will be presented and their theories applied to the texts being analyzed and discussed. (GC)

ENGL-130  American Stories: Multicultural Autobiography and Memoir  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course explores the lives of multicultural Americans, such as Native Americans, African Americans, Asian Americans, and Latinos, as told through autobiography or memoir. (GC)

ENGL-131  Hip Hop/Slam Poetry  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
This is a creative writing course in which students write and perform hip hop and slam poetry that expresses their thoughts about the world. (GC)

ENGL-141  Advanced Novel and Short Story Writing  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ENGL-111B  
Advisory: ENGL-101A  
Accepted For Credit: CSU  
This course provides students who have taken at least one creative writing course with an opportunity to focus on fine-tuning their creative writing skills; finish their novels, memoirs, and/or short stories; and prepare their work for publication. (GC)

ENGL-151A  Fundamentals of Composition  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: ESL-184RW or appropriate skill level demonstrated through the placement test process  
Advisory: Concurrent enrollment in ENGL-162  
This course reviews fundamentals of English grammar, punctuation, and acceptable usage as applied to writing clear sentences, paragraphs, and informal essays. Not applicable to associate degree. (GR)

ENGL-151B  Fundamentals of Composition  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: ESL-184RW; concurrent enrollment in ENGL-163  
This course focuses on fundamentals of English grammar, punctuation, and sentence structure and focuses on reading critically and writing well-developed and well-organized paragraphs and essays (descriptive, expository, and argumentative). Not applicable to associate degree. (GR)

ENGL-151RW  Introduction to College Reading and Writing  
90.00 hrs lecture  
Units: 5.00  
This intensive reading and writing course is designed for students to be successful in college-level courses. The course focuses on reading analytically, thinking critically, and writing academic essays. Not applicable to associate degree. (GR)

ENGL-156  Introduction to Report and Technical Writing  
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-151B, BA-116, or equivalent writing experience  
Accepted For Credit: CSU  
This course focuses on the basics of technical writing and covers how to write effective workplace documents such as memos, procedures, and reports, as well as formal proposals. (GR)

ENGL-162  Developmental Reading  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
English 162 is an introduction to college reading and study techniques. Students learn to analyze, annotate, and respond to a variety of college readings, including essays, textbook chapters, news articles, and stories. The course's emphasis is on analytical reading: recognizing main ideas, discerning underlying patterns of thought, making inferences, and drawing conclusions. Not applicable to associate degree. (GR)
ENGL-163 Techniques of College Reading
$4.00 hrs lecture, $4.00 hrs lab
Units: 4.00
ENGL-163 is the most advanced in the series of reading and study skills courses. In this course, students will develop college level skills in vocabulary, comprehension, critical reading and thinking, study strategies, and written response to reading. Not applicable to associate degree. (GR)

ENGL-172 Vocabulary Improvement
$4.00 hrs lab
Units: 1.00
This course is designed for students of all levels of achievement who wish to improve their vocabulary through an individualized program. Materials are assigned after pretesting. Not applicable to associate degree. (GR)

ENGL-173 Improvement of Learning Techniques
$4.00 hrs lab
Units: 1.00
This course is for students who wish to improve learning skills through individualized practice of effective reading, studying, and listening. Course materials are assigned after pretesting. Not applicable to associate degree. (GR)

ENGL-174 Spelling Improvement
$4.00 hrs lab
Units: 1.00
This course is for students who wish to improve spelling skills through individualized practice. Course materials are assigned after pretesting. Not applicable to associate degree. (GR)

ENGL-175 Reading and Comprehension Improvement
$4.00 hrs lab
Units: 1.00
This course is for students who wish to improve reading comprehension through individualized work on specific weaknesses. Course materials are assigned after pretesting. Not applicable to associate degree. (GC)

ENGL-176 Rapid Reading
$4.00 hrs lab
Units: 1.00
Advisory: Ninth grade reading comprehension level
This course is for students who have at least a ninth grade level of comprehension and who wish to increase reading rate while maintaining or improving their level of comprehension. Materials are assigned after pretesting. Not applicable to associate degree. (GR)

ENGL-965 Supervised Tutoring
72.00 hrs lab
Units: 0.00
Prerequisite: Referral by instructor
Corequisite: Concurrent enrollment in the course for which the student needs academic support in order to succeed
In this noncredit course students from referred courses receive supplemental academic support to reinforce course content and bolster academic skills. Under the supervision of qualified faculty in one of the college’s Learning Centers, peer tutors provide individual and/or group instruction to improve learning in areas of assessed need. Not applicable to associate degree. Repeatable = Unlimited times (NG)

English as a Second Language (ESL)

Division: Language, Communication, and Academic Success
Academic Dean: Mark Lieu
Division Administrative Assistant: Dana Pope
Location: Fremont campus, Room 3420K
Phone number: 510-659-6173

ESL-122 News and Current Events for ESL Students
$4.00 hrs lecture
Units: 3.00
Prerequisite: ESL-181RW, or placement into ESL-182RW or higher
Students read, discuss, and practice writing about current topics and issues in the news. News articles are available at multiple reading levels. Not applicable to associate degree. (GC)

ESL-181LS Listening and Speaking, Level I (Low Intermediate)
90.00 hrs lecture
Units: 5.00
This course is designed to develop communication skills in American English. The course is open to students whose native language is not English. There is practice in the skills of listening and speaking with an emphasis on fluency and vocabulary development. Not applicable to associate degree. (GC)

ESL-181RW Reading and Writing, Level I (Low Intermediate)
90.00 hrs lecture
Units: 5.00
Advisory: Placement through the ESL placement process
This course is designed to develop basic reading, vocabulary, grammar, and paragraph-writing skills in American English. The course is part of the first level of the ESL sequence, and is designed for non-native speakers of English who can already read, write, and communicate in simple English related to everyday life. Not applicable to associate degree. (GC)

ESL-182LS Listening and Speaking, Level II (Intermediate)
90.00 hrs lecture
Units: 5.00
Prerequisite: ESL-181LS, ESL-981LS, or placement through the ESL placement process
This course is designed to develop communication skills in American English, with an emphasis on fluency, vocabulary development, verb tenses, and basic sentence structure. The course is designed for non-native speakers of English. Not applicable to associate degree. (GC)

ESL-182RW Reading and Writing, Level II (Intermediate)
90.00 hrs lecture
Units: 5.00
Prerequisite: ESL-181RW, ESL-981RW, or placement through the ESL placement process
This course is designed to develop reading, vocabulary, grammar, and writing skills, including the writing of long, well-developed paragraphs in American English. The course is part of the second level of the ESL sequence, and is designed for non-native speakers of English. Not applicable to associate degree. (GC)

NONCREDIT ENGLISH COURSE

ENGL-965 Supervised Tutoring
72.00 hrs lab
Units: 0.00
Prerequisite: Referral by instructor
Corequisite: Concurrent enrollment in the course for which the student needs academic support in order to succeed
In this noncredit course students from referred courses receive supplemental academic support to reinforce course content and bolster academic skills. Under the supervision of qualified faculty in one of the college’s Learning Centers, peer tutors provide individual and/or group instruction to improve learning in areas of assessed need. Not applicable to associate degree. Repeatable = Unlimited times (NG)
ESL-183LS  Listening and Speaking, Level III (High Intermediate)  
90.00 hrs lecture  
Units: 5.00  
Prerequisite: ESL-182LS, ESL-982LS, or placement through the ESL placement process  
This course is designed to help non-native speakers develop high-intermediate listening and speaking skills in American English, with an emphasis on fluency, comprehension, vocabulary development, verb tenses, beginning note-taking, and sentence structure. Not applicable to associate degree.  
(GC)

ESL-183RW  Reading and Writing, Level III (High Intermediate)  
90.00 hrs lecture  
Units: 5.00  
Prerequisite: ESL-182RW, ESL-982RW, or placement through the ESL placement process  
This course is designed to develop advanced listening and speaking skills for academic purposes. The course includes practice in listening, note-taking, and responding to academic lectures and other presentations (e.g., Ted Talks) through group discussions, debates, oral presentations, and impromptu speeches. Attention is paid to aural/oral fluency, vocabulary development, and strategies for successful interaction in an academic or professional context. This is the fourth and highest level of the ESL listening/speaking sequence. Not applicable to associate degree.  
(GC)

ESL-184LS  Listening and Speaking, Level IV (Advanced)  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ESL-183LS, ESL-983LS, or placement through the ESL placement process  
This course is designed to develop advanced listening and speaking skills for academic purposes. The course includes practice in listening, note-taking, and responding to academic lectures and other presentations (e.g., Ted Talks) through group discussions, debates, oral presentations, and impromptu speeches. Attention is paid to aural/oral fluency, vocabulary development, and strategies for successful interaction in an academic or professional context. This is the fourth and highest level of the ESL listening/speaking sequence. Not applicable to associate degree.  
(GC)

ESL-184RW  Reading and Writing, Level IV (Advanced)  
90.00 hrs lecture  
Units: 5.00  
Prerequisite: ESL-183RW, ESL-983RW, or placement through the ESL placement process  
This course is designed to prepare non-native speakers of English for success in transfer-level English and other college courses. The focus is on reading analytically, thinking critically, and writing academic essays, with additional attention to grammar, vocabulary development, and oral communication. Not applicable to associate degree.  
(GC)

ESL-981LS  Listening and Speaking, Level I (Low Intermediate)  
90.00 hrs lecture  
Units: 0.00  
This noncredit course is designed to develop communication skills in American English. The course is open to students whose native language is not English. There is practice in the skills of listening and speaking with an emphasis on fluency and vocabulary development. Not applicable to associate degree.  
Repeatable = Unlimited times (GC)

ESL-981RW  Reading and Writing, Level I (Low Intermediate)  
90.00 hrs lecture  
Units: 0.00  
Advisory: Placement through the ESL placement process  
This noncredit course is designed to develop basic reading, vocabulary, grammar, and paragraph-writing skills in American English. The course is part of the first level of the ESL sequence, and is designed for non-native speakers of English who can already read, write, and communicate in simple English related to everyday life. Not applicable to associate degree.  
Repeatable = Unlimited times (GC)

ESL-982LS  Listening and Speaking, Level II (Intermediate)  
90.00 hrs lecture  
Units: 0.00  
Prerequisite: ESL-981LS, ESL-18LS, or placement through the ESL placement process  
This noncredit course is designed to develop communication skills in American English, with an emphasis on fluency, vocabulary development, verb tenses, and basic sentence structure. The course is designed for non-native speakers of English. Not applicable to associate degree. Repeatable = Unlimited times (GC)

ESL-982RW  Reading and Writing, Level II (Intermediate)  
90.00 hrs lecture  
Units: 0.00  
Prerequisite: ESL-981RW, ESL-18RW, or placement through the ESL placement process  
This noncredit course is designed to develop reading, vocabulary, grammar, and writing skills, including the writing of long, well-developed paragraphs in American English. The course is part of the second level of the ESL sequence, and is designed for non-native speakers of English. Not applicable to associate degree.  
Repeatable = Unlimited times (GC)

ESL-983LS  Listening and Speaking, Level III (High Intermediate)  
90.00 hrs lecture  
Units: 0.00  
Prerequisite: ESL-982LS, ESL-182LS, or placement through the ESL placement process  
This noncredit course is designed to help non-native speakers develop high-intermediate listening and speaking skills in American English, with an emphasis on fluency, comprehension, vocabulary development, verb tenses, beginning note-taking, and sentence structure. Not applicable to associate degree.  
Repeatable = Unlimited times (GC)

ESL-965 Supervised Tutoring  
72.00 hrs lab  
Units: 0.00  
Prerequisite: Referral by instructor  
In this noncredit course students from referred courses receive supplemental academic support to reinforce course content and bolster academic skills. Under the supervision of qualified faculty in one of the college's Learning Centers, peer tutors provide individual and/or group instruction to improve learning in areas of assessed need. Not applicable to associate degree.  
Repeatable = Unlimited times (NG)
Environmental Studies (ENVS)

Division: Social Sciences
Academic Dean: Ghada Al-Masri
Division Administrative Assistant: Sheila Holland
Location: Fremont campus, Room 3316J
Phone number: 510-659-6216

ESL-983RW  Reading and Writing, Level III (High Intermediate)
90.00 hrs lecture
Units: 0.00
Prerequisite: ESL-982RW, ESL-182RW, or placement through the ESL placement process
This noncredit course is designed to develop reading, writing, vocabulary, and grammar skills for academic English, including an introduction to writing essays. The course is part of the third level of the ESL sequence, and is designed for non-native speakers of English. Not applicable to associate degree. Repeatable = Unlimited times (GC)

ESL-984LS  Listening and Speaking, Level IV (Advanced)
54.00 hrs lecture
Units: 0.00
Prerequisite: ESL-183LS, ESL-983LS, or placement through the ESL placement process
This noncredit course is designed to develop advanced listening and speaking skills for academic purposes. The course includes practice in listening, note-taking, and responding to academic lectures and other presentations (e.g., Ted Talks) through group discussions, debates, oral presentations, and impromptu speeches. Attention is paid to aural/oral fluency, vocabulary development, and strategies for successful interaction in an academic or professional context. This is the fourth and highest level of the ESL listening/speaking sequence. Not applicable to associate degree. Repeatable = Unlimited times (GC)

ESL-984RW  Reading and Writing, Level IV (Advanced)
90.00 hrs lecture
Units: 0.00
Prerequisite: ESL-983RW, ESL-183RW, or placement through the ESL placement process
This noncredit course is designed to prepare non-native speakers of English for success in transfer-level English and other college courses. The focus is on reading analytically, thinking critically, and writing academic essays, with additional attention to grammar, vocabulary development, and oral communication. Not applicable to associate degree. Repeatable = Unlimited times (GC)

ENVS-103  The Environment and Human Health
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course explores the broad conditions that shape environmental health, both human health and the ecosystem context, moving across and between questions of science, public policy (from municipal to international), and social justice (workings of non-governmental organizations). Students dedicate themselves to bridging the understanding among scientific, policy, culture, and social perspectives and examine emerging strategies and solutions, from community-based monitoring to United Nations negotiations. (GR)

ENVS-105  Energy: The Environment, Humans, and Sustainability
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
The course is an exploration of the conversion and use of energy; the nature of energy and energy systems; how different cultures use and view energy; and the use of energy in contemporary societies. The course explains the origin and dimensions of the global energy problem and identifies how energy issues and policies affect environmental quality, economic growth, and global politics. The course focuses on how energy conservation, energy efficiency, and renewable energy sources can be incorporated to create a sustainable society. (GR)

ENVS-107  Food, Culture, and the Environment
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course examines how global changes in food systems, politics, economics, science, and consumption impact the environment and how—through traditional and evolving methods of farming—humanity can reduce environmental impacts and feed society sustainably. (GR)

ENVS-108  Introduction to the Environment
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
Introduction to the Environment is an interdisciplinary, general education course that examines human impact on the environment and presents solutions to these problems toward a more sustainable society. (GR)

ENVS-109  Sustainable Urban Design and the Environment
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course presents the sociological, economical, and sustainable perspectives in the investigation and understanding of urban phenomena. Included are a wide range of topics that tap the spectrum of urban and non-urban growth and development in both the developed and developing world. (GR)
**ENVS-110**  Climate Change: Science, The Environment, and Society  
$4.00$ hrs lecture  
Units: $3.00$  
Accepted For Credit: CSU & UC  
Causes and consequences of climate variability on a variety of timescales are addressed, with a focus on evidence for natural and anthropogenic climate fluctuations. As a multidisciplinary course students examine human uses of resources and impacts on the global environment by focusing on global climate change as a case for study. Contrasting viewpoints and interactions among natural and engineering sciences, social and political sciences, law and ethics are stressed. (GR)

**ENVS-142**  Environmental Biology  
$54.00$ hrs lecture, $54.00$ hrs lab  
Units: $4.00$  
Cross-referenced Course: BIOL-142  
Accepted For Credit: CSU & UC  
This lecture and lab course is an introduction to the biological sciences focusing on diversity; organismal interactions with their environment (ecology); the effects humans have had on biological diversity and ecosystems; and efforts to protect species and their habitats (conservation). No previous biology experience required. (GR)

**ENVS-143**  Environmental Field Studies  
$9.00$ hrs lecture, $27.00$ hrs lab  
Units: $1.00$  
Accepted For Credit: CSU  
This course examines the natural history of ecosystems and the interaction of humans with their environment. Through experiential learning students will engage with flora, fauna, and habitats such as tropical forests, deserts, mountains, etc. (GC)

**Esports**  (ESPTS)  
**Division**: Language, Communication, and Academic Success  
**Academic Dean**: Mark Lieu  
**Division Administrative Assistant**: Dana Pope  
**Location**: Fremont campus, Room 3420K  
**Phone number**: 510-659-6173  
**ESPTS-101**  Introduction to Esports  
$4.00$ hrs lecture  
Units: $3.00$  
This is an introductory course where students examine the history and grassroots growth of competitive esports. Students review the wide variety of careers that have spawned in this dynamic industry, and examine popular esports communication and streaming applications. Students learn about the games with the largest competitions, both in the commercial world as well as collegiate and high school leagues. Students demonstrate understanding of how emerging technologies enabled large scale viewership supporting the remarkable rise of esports as an industry. (GC)

**Fire Technology**  (FT)  
**Division**: Social Sciences  
**Academic Dean**: Ghada Al-Masri  
**Division Administrative Assistant**: Sheila Holland  
**Location**: Fremont campus, Room 3316J  
**Phone number**: 510-659-6216  
Ohlone College is a member of the South Bay Regional Public Safety Training Consortium. Vocational training courses are offered in various areas including, but not limited to, the following: Correctional Officer, Law Enforcement Officer, Reserve Police Officer, Dispatcher, Fire Technology, Probation Officer, and Juvenile Hall Counselor. The Consortium is funded by various regional community colleges to provide vocation-specific training which may require special facilities, special training conditions, or is presented outside of the schedules of regular college classes. Students who would like a schedule of these classes or more information on specific programs may call 408-229-4299.

The application and registration process is completed at the South Bay Regional Public Safety Training Consortium located at 560 Bailey Avenue in San Jose. Although open to the public, the majority of these courses are intended to serve the already employed. Students who would like information about a career in any of these programs should call 408-229-4299.

**FT-150A5**  Emergency Medical Technician  
$36.00$ hrs lecture, $180.00$ hrs lab  
Units: $5.00$  
Prerequisite: Current Emergency Medical Responder card (preferred), or current CPR card (either American Heart Association/BLS Healthcare Provider level or American Red Cross/Professional Rescuer level) and current First Aid or Medic First Aid card  
This course is designed to prepare students to render pre-hospital basic life support services, including cardiopulmonary resuscitation, with emphasis on field application, practices, and techniques vital to the interaction of EMT-I personnel with all levels of emergency medical personnel. (GR)

**FT-225A18**  Fire Fighter I Academy  
$184.50$ hrs lecture, $450.00$ hrs lab  
Units: $18.00$  
Prerequisite: Physical Agility Exam  
This academy includes instruction on basic firefighting skills, laws, and regulations affecting the fire service. The course provides students with knowledge and skills to safely perform, under minimal supervision, essential and advanced fire ground tasks, basic rescue, basic fire prevention, and fire investigation tasks and to use, inspect, and maintain firefighting and rescue equipment. This curriculum is intended to provide the minimum required training required by the State of California Fire Marshal in the field of fire technology as it relates to firefighters. (GR)
FT-226A1  Fire Fighter Academy Skills
9.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Prerequisite: FT-225A18; State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. Familiarity with and ability to demonstrate all of these skills and minimum knowledge: knowledge of firefighter safety; all firefighting personal protective equipment; firefighting tools and equipment, ladders, and hoses; fuel types; precautions and suppression methods. Ability to don and use SCBA and PASS Device. Familiarity with structure ventilation and rescue knots.
This course prepares students to meet the State Fire Training (SFT) requirements for Fire Fighter I Academy, including the capstone knowledge and skills necessary to pass Fire Fighter I Academy. (GR)

FT-236A2  Cal Fire Academy Refresher
18.00 hrs lecture, 63.00 hrs lab
Units: 2.00
Prerequisite: State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of the following skills. These skills will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels include: knowledge of fire service organization, firefighter safety, rescue procedures, and vehicle extraction procedures; familiarity with fire behavior, personal protective equipment, fire hoses, tools, equipment, ladders, and wildland fires.
This is a refresher course for the Basic Cal Fire Firefighter Academy. Returning firefighters must pass the returning firefighter written examination before working on an emergency incident. The subjects are intended to give the Firefighter I a basic knowledge which is needed prior to emergency response. Students are required to meet the minimum standard as noted in the behavioral objective for each subject/topic. Candidates for qualification under this course must meet the basic requirements for employment as a CDF Firefighter I or Cal Fire I. Not applicable to associate degree. Repeatable = Unlimited times (CR)

FT-241  Confined Space Rescue
8.00 hrs lecture, 32.00 hrs lab
Units: 1.00
Prerequisite: Confined Space Rescue Awareness
This course provides information to identify confined spaces and permit-required confined spaces, evaluate hazardous atmospheres, determine adequate levels of personal protection, techniques needed for hazard mitigation, identify basic operational positions, understand responsibilities set by CAL-Osha, and prepare for confined space rescue operations. Not applicable to associate degree. Repeatable = Unlimited times (CR)

FT-241A5  Confined Space Rescue
4.50 hrs lecture, 31.50 hrs lab
Units: 0.50
Prerequisite: State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of the following skills and knowledge: firefighter safety; don and use SCBA and PASS device, emergency procedure for SCBA failure; determination of air supply in a hazardous atmosphere; firefighting personal protective equipment, including hand and eye protection; firefighting tools and equipment, ladders, and hoses including appropriate selection; horizontal and vertical ventilation on a structure; fuel types, precautions, and suppression method(s); attack technique for an interior structure fire; appropriate use of class A, B, and C fire extinguishers; effective verbal communication used in fire fighting.
This course is an intensive hands-on training program that will prepare students to respond to confined space emergencies. This course prepares students with identifying confined spaces and permit-required confined spaces; the hazards associated with permit-required confined spaces; target industries and hazards; state and federal regulations; components of a rescue operation; and the roles and responsibilities of the rescue team. Not applicable to associate degree. Repeatable = Unlimited times (CR)

FT-242A2  CDF Fire Academy - Seasonal
18.00 hrs lecture, 63.00 hrs lab
Units: 2.00
This course is department policy for the entry-level California Department of Forestry (CDF) Firefighter I. The training is designed to assist with competency-based group instruction, and students are expected to demonstrate the skills necessary to be a safe and effective Firefighter I. Students are required to meet the minimum standard as noted in the behavioral objective for each subject/topic. Candidates for qualification under this course must meet the basic requirements for employment as a CDF Firefighter I. Students are required to provide uniforms, OSHA approved work boots, and physical fitness clothes. Repeatable = Unlimited times (GR)

FT-256  Fire Continued Professional Training (CPT)
9.00 hrs lecture, 18.00 hrs lab
Units: 0.50
Prerequisite: State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate these skills and knowledge: Firefighter safety; don and use SCBA and PASS device; emergency procedure for SCBA failure; establish and mark a hot zone around an electrical hazard; knowledge of all firefighting tools and equipment, ladders, and hoses including appropriate selection, carry, and use for each type across all types of emergencies; horizontal and vertical ventilation on a structure.
This course is designed to focus on firefighter safety in order to provide a continuing effort to reduce the number of firefighter injuries and fatalities that occurs on an annual basis. The course will supply the student with a greater understanding of the need for situational awareness, firefighter survival skills, and the technical survival skills to help avoid committing fatal errors on the fireground. Not applicable to associate degree. Repeatable = Unlimited times (CR)
FT-260 Fire Instructor I
13.50 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. Note: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of the following skills: Fire Instructor certification process; instructional development and delivery; evaluation and testing procedures; program management techniques; fire safety; Incident Command System (ICS); record keeping.
This course provides the skills and knowledge needed for the entry-level professional instructor to perform his or her duties safely, effectively, and competently. This course is designed for personnel preparing for a college-level fire instructor, Company Officer, or SFT Certified Training Instructor position. Enrollment in this course does not ensure the students eligibility for State Certificate. Not applicable to associate degree. (CR)

FT-261 Fire Instructor II
13.50 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. Note: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of the following skills: Fire Instructor certification process; instructional development and delivery; evaluation and testing procedures; program management techniques; fire safety; Incident Command System (ICS); record keeping.
This course provides the skills and knowledge needed for the intermediate level professional instructor to perform his or her duties safely, effectively, and competently. At the end of this course candidates will be able to develop lesson plans and evaluation instruments; teach and deliver instruction; and evaluate and coach other instructors. The Instructor II will also be able to analyze resources and formulate a program budget. Enrollment in this course does not ensure the students eligibility for State Certificate. Not applicable to associate degree. (CR)

FT-262 Fire Company Officer 2A
13.50 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. Note: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate the following skills and abilities: Fire Officer Certification process; knowledge of Fire Fighter Safety; familiarity with fire communication; familiarity with emergency response; familiarity with Health and Safety.
This course provides information on the use of human resources to accomplish assignments; evaluating member performance; supervising personnel; and integrating health and safety plans, policies, and procedures into daily activities as well as the emergency scene. Not applicable to associate degree. (CR)

FT-263 Fire Company Officer 2B
9.00 hrs lecture, 9.00 hrs lab
Units: 0.50
Prerequisite: State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. Note: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of the following skills: Fire Officer certification process; familiarity with agency policies and procedures; familiarity with roles and responsibilities of various fire officers; familiarity with the organizational structure of the department.
This course provides information on general administrative functions and the implementation of policies and procedures and addresses conveying the fire department’s role, image, and mission to the public. Not applicable to associate degree. (CR)

FT-264 Fire Company Officer 2C
13.50 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. Note: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of the following skills: Fire Officer certification process; knowledge of fire behavior; familiarity with fire detection systems; familiarity with fire investigation.
This course provides information on conducting inspections; identifying hazards and addressing violations; performing a fire investigation to determine preliminary cause and securing the incident scene; and preserving evidence. Not applicable to associate degree. (CR)
FT-265 Fire Company Officer 2D
13.50 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of the following skills and knowledge familiarity with Fire Officer certification process; familiarity with size-ups; familiarity with fire emergency operations; knowledge of fire incident information resources.
This course provides information on conducting incident size-up; developing and implementing an initial plan of action involving single and multi-unit operations for various types of emergency incidents to mitigate the situation following agency safety procedures; conducting pre-incident planning; and developing and conducting a post-incident analysis. Not applicable to associate degree. (CR)

FT-266 Fire Company Officer 2E
13.50 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Familiarity with and ability to demonstrate all of the following skills and knowledge familiarity with Fire Officer certification process; familiarity with wildland fire; fire safety; familiarity with emergency medical treatment; fire behavior.
This course is designed to provide information on evaluating and reporting incident conditions; analyzing incident needs; developing and implementing a plan of action to deploy incident resources completing all operations to suppress a wildland fire; establishing an incident command post; creating an incident action plan; and completing incident records and reports. Not applicable to associate degree. (CR)

French (FREN)

Division: Language, Communication, and Academic Success
Academic Dean: Mark Lieu
Division Administrative Assistant: Dana Pope
Location: Fremont campus, Room 3420K
Phone number: 510-659-6173

FREN-101A Elementary French
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course is an introduction to the reading, writing, speaking, and understanding of French and French culture. (GR)

FREN-101B Elementary French
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: FREN-101A or two years of high school French
Accepted For Credit: CSU & UC
This course is a continuation of FREN-101A. This course covers the fundamentals of French grammar in addition to reading, writing, speaking the language, and French culture. (GR)

FREN-102A Intermediate French
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: FREN-101B or three years of high school French
Accepted For Credit: CSU & UC
This course is a review of grammar; oral and written composition; and a study of French culture. (GR)

FREN-102B Intermediate French
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: FREN-102A
Accepted For Credit: CSU & UC
This course is a continuation of FREN-102A covering advanced grammar; oral and written composition; and the study of French civilization and culture. (GR)

Did you know???
Ohlone was the first smoke-free college in the Bay Area and has set a trend for other colleges.
**Gender and Women’s Studies (WS)**

**Division:** Social Sciences  
**Academic Dean:** Ghada Al-Masri  
**Division Administrative Assistant:** Sheila Holland  
**Location:** Fremont campus, Room 3316J  
**Phone number:** 510-659-6216

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Details</th>
</tr>
</thead>
</table>
| WS-101 | Introduction to Gender and Women’s Studies | 54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC |

This course offers an introduction to Women’s and Gender Studies, an interdisciplinary field that asks critical questions about the meanings of sex and gender in society. Central to this course are the ways in which place, race, ethnicity, sexuality, gender orientation, class, religion, and age intersect to shape women’s experiences and the various socio-political meanings of gender. This course poses questions in a global context. (GC) C-ID SJS 120; C-ID SOCI 140

| WS-108 | Gender, Sexual Identity, and Communication | 4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: COMM-118  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC |

In this course students will examine the myriad communicative processes which function to create, maintain, reinforce, and challenge cultural expectations of gender performances. (GR)

| WS-115 | Women in Literature | 4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: ENGL-115  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC |

Students will read, discuss, and write about short stories, novels, poetry, drama, and essays of British and American women writers past and present. (GR)

| WS-150 | Women’s Health Issues | 4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: HLTH-150  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC |

This course is a study of the contemporary issues affecting women’s health at home and at work from biological, psychological, and sociological perspectives. The course will explore such topics as mental health, sexuality, nutrition, exercise, rape and battery, aging, occupational health, and cultural diversity, and the effects on women in American culture. (GC)

**Geography (GEOG)**

**Division:** Social Sciences  
**Academic Dean:** Ghada Al-Masri  
**Division Administrative Assistant:** Sheila Holland  
**Location:** Fremont campus, Room 3316J  
**Phone number:** 510-659-6216

This department offers Special Projects courses (GEOG-201 and GEOG-202). Please see page 156 of this catalog for more information regarding Special Projects courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Details</th>
</tr>
</thead>
</table>
| GEOG-101 | Physical Geography | 5.00 hrs lecture, 5.00 hrs lab  
Units: 4.00  
Accepted For Credit: CSU & UC |

This course presents a spatial study of the Earth’s dynamic physical systems and processes, as well as the interaction between humans and their physical environment. Topics include weather, pollution, climate, landforms, soil, vegetation, earthquakes, volcanism, water quality, and environmental management. Labs provide supplemental exercises in the topics covered in the lecture. (GR) C-ID GEOG 115

| GEOG-102 | Cultural Geography | 4.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC |

This course is a study of diverse human populations and their cultural origins, diffusion, and contemporary spatial expressions. Students will explore how humans create “places” through culture and their adaptation to the physical environment. Formal and functional aspects of spatial decision-making are analyzed and critiqued, as well as designed to provide students with an understanding of the spatial distributions of cultures and the processes that led to these distributions. (GR) C-ID GEOG 120

| GEOG-104 | World Regional Geography | 4.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-163  
Accepted For Credit: CSU & UC |

The course covers the survey study of world geography, region by region. Students will acquire geographic literacy by learning the map of the world and relating it to the up-to-date knowledge about the nations of the world, their physical environment, ethnic make-up, culture, historical influences, economics, environmental issues, and relationships with other nations. (GR) C-ID GEOG 125

| GEOG-105 | California Geography | 4.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC |

A thematic approach to the state’s issues, processes, and topics relevant to geography including climate, landforms, natural vegetation, water resources, cultural landscape, ethnic diversity, urban and agricultural regions, and the economy. This course explores the physical and human landscapes that have evolved as a result of the human-environment interface. (GR) C-ID GEOG 140
GEOG-106  Economic Geography: Resources and Society  
S.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course focuses on the ways in which economic activities are organized, how they impact regions and society, and how they change over time. Students will examine what is old and what is new about globalization and how it matters to people, places, culture, and the environment. The course will use a political economy approach, concentrating on the relationship among economic processes, political institutions, and sociocultural structures. (GR)

GEOG-107  Introduction to Global Studies  
S.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course is an introduction to the interdisciplinary field of global studies, including the history of globalization; and economic, political, social, cultural, and ecological developments related to the process of globalization. (GR)

GEOG-108  Global Problems and Issues  
S.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course introduces students to the origins, current status, and future trends of major transnational issues confronting the global community. Topics include population trends; economic development and inequality; basic human needs (for food, water, health care); human rights; international conflict and security concerns; and environmental problems. The course also focuses on global governance, including the study of collective global responsibilities. (GR)

GEOG-121  Introduction to Geographic Information Systems (GIS)  
S.00 hrs lecture, 18.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
The objective of this introductory course is to gain basic knowledge of GIS concepts, techniques, and applications. The emphasis of this course is to provide hands-on instruction on the functionality of GIS as an effective tool for modeling and analyzing complex spatial relationships. (GR) C-ID GEOG 1SS

Geology (GEOL)
Division: Science, Engineering, and Mathematics  
Academic Dean: Loretta Silverman  
Division Administrative Assistant: Irene Benavidez  
Location: Fremont campus, Room 1301L  
Phone number: 510-659-6191

This department offers Special Projects courses (GEOL-201 and GEOL-202). Please see page 156 of this catalog for more information regarding Special Projects courses.

GEOL-101  Introduction to Geology  
S.00 hrs lecture, S.00 hrs lab  
Units: 4.00  
Accepted For Credit: CSU & UC  
This course covers geological processes that shape the earth and its history. The course emphasizes global geological phenomena (earthquakes, volcanoes, plate tectonics), the concept of “deep” time, climate change, natural resources, and the interaction between humans and their environment. One Saturday field trip is required. (GR) C-ID GEOL 101

GEOL-102  Introduction to Oceanography  
S.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
The world’s oceans are examined from the physical, biological, geological, and environmental perspectives. This includes the study of the origin, structure, and exploration of the oceans; plate tectonics; marine life; hazards and natural resources of the oceans; their role in climate change; and human impact on the marine and coastal environments. One Saturday field trip is required. (GR)

GEOL-102L  Oceanography Laboratory  
S.00 hrs lab  
Units: 1.00  
Corequisite: GEOL-102  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
GEOL-102L is designed to supplement GEOL-102. The lab will consist of hands-on exercises and two Saturday field trips that illuminate various aspects of ocean science. This will include working with maps, living and fossil specimens of marine life, web-based study of global plate tectonics, field observations of marine rocks, fossils, living organisms in tide pools, and the study of San Francisco Bay onboard a ship. (GC)

GEOL-103  Paleontology and Dinosaurs  
S.00 hrs lecture  
Units: 3.00  
Advisory: GEOL-103L  
Accepted For Credit: CSU & UC  
A journey through the history of life, from its beginnings about four billion years ago to the heyday of the dinosaurs and extinction of giant mammals at the end of the last Ice Age. The course provides an introduction to the study of prehistoric life on the basis of fossils, evolution, mass extinctions, and global change. One local Friday afternoon field trip is required. (GR)
GEOL-103L Earth History and Paleontology Laboratory
54.00 hrs lab
Units: 1.00
Advisory: Eligible for MATH-151; GEOL-103 and GEOL-104
Accepted For Credit: CSU & UC
Hands-on studies of Earth history as revealed by rocks and fossils representing different stages in evolution of the Earth and life through geologic time. Labs include map exercises; relative and numerical age determinations; reconstructions of geological history of North America; and studies of fossil specimens of animals and plants from all over the world. A Saturday field trip may be required. This course is an optional supplement to GEOL-103 or GEOL-104. (GR)

GEOL-104 The Changing Earth: Historical Geology
54.00 hrs lecture
Units: 3.00
Advisory: GEOL-104L
Accepted For Credit: CSU & UC
This course covers the study of the origin and evolution of Earth and life through time. Geological history and global change during the past 4.6 billion years as revealed by plate tectonics, paleogeography, geologic dating of rocks and fossils, sedimentary rock sequences, biological evolution, and evidence for climatic change, both ancient and recent. The development of continents, especially North America, ocean basins, and mountains. (GC) C-ID GEOL 110

GEOL-104L Historical Geology Laboratory
54.00 hrs lab
Units: 1.00
Corequisite: GEOL-104
Accepted For Credit: CSU & UC
This course is the laboratory component to GEOL-104, The Changing Earth: Historical Geology, that satisfies the physical science lab requirement for transfer. The course includes hands-on studies of Earth history as revealed by rocks, fossils, age of earth materials, the Geologic Time Scale, stratigraphy, plate tectonics, biological evolution, and processes of global change (geologic, biologic, climatic) in the past 4.6 billion years of Earth history. (GR) C-ID GEOL 110 L

Did you know???
One out of every four Californians ages 18-24 are currently enrolled in a community college.
Source: California Community Colleges Chancellor’s Office
### GA-110A Advanced Graphic Design I
- **Credit Hours:** 3.00
- **Lecture Hours:** 36.00
- **Lab Hours:** 72.00
- **Cross-referenced Course:** ART-110A
- **Prerequisite:** GA-109B or ART-109B
- **Accepted For Credit:** CSU

This course is designed for students who have completed advanced level graphic design courses. The emphasis is on strengthening students' conceptual skills and formal visual communication abilities. Topics include comprehensive projects in applied graphics and three-dimensional design. Students are encouraged to experiment, innovate, and develop methods of expression that reflect their artistic and cultural identities while effectively communicating with various audiences. (GC)

### GA-110B Advanced Graphic Design II
- **Credit Hours:** 2.00
- **Lecture Hours:** 18.00
- **Lab Hours:** 54.00
- **Cross-referenced Course:** ART-110B
- **Prerequisite:** GA-110A or ART-110A
- **Accepted For Credit:** CSU

The goal of this course is to further the student's understanding of advanced objectives, principles, and methods used in graphic design. The assignments in this course are designed to provide a range of opportunities for conceptual and formal problem solving to assist with the creation of marketing and portfolio materials for professional job search. (GC)

### GA-112 Motion Graphics
- **Credit Hours:** 3.00
- **Lecture Hours:** 36.00
- **Lab Hours:** 54.00
- **Cross-referenced Course:** MM-112
- **Accepted For Credit:** CSU

This course introduces students to the concepts, practices, and techniques in Motion Graphic Design and Visual Effects software. Topics include digital compositing, animation, interaction design, and visual effects to produce captivating communication design for film, TV, web, and multimedia industries. (GR)

### GA-120 Packaging and Promotional Design
- **Credit Hours:** 2.00
- **Lecture Hours:** 18.00
- **Lab Hours:** 54.00
- **Accepted For Credit:** CSU

This course introduces students to creating computer-generated graphics for product packaging using creative principles and industry-standard software tools. Students examine graphic design techniques employed in the production of packaging and learn how to utilize mechanical templates widely used in the industry. The course emphasizes retail and shelf presence, visual effectiveness, branding and labeling, manufacturing processes, and 3D prototyping. (GC)

### GA-138A Photoshop I
- **Credit Hours:** 3.00
- **Lecture Hours:** 27.00
- **Lab Hours:** 81.00
- **Cross-referenced Course:** ART-138A
- **Accepted For Credit:** CSU & UC

This course is designed as an introduction to Adobe Photoshop for photographers, designers, and artists with little to no experience with the software. Students learn the basics of the Photoshop interface; the tools and processes for editing photographs; and methods for creating digitally-based images and text. Additional instruction and assignments introduce the fundamentals of photographic practice, graphic design, and color theory. Emphasis is placed on developing the skills and vocabulary for the assessment and analysis of photographs, designs, and other works of art. (GC)

### GA-138B Photoshop II
- **Credit Hours:** 3.00
- **Lecture Hours:** 27.00
- **Lab Hours:** 81.00
- **Cross-referenced Course:** ART-138B
- **Prerequisite:** GA-138A or ART-138A
- **Accepted For Credit:** CSU & UC

This course is designed for photographers, designers, and artists who wish to increase their working knowledge of the Adobe Photoshop software. Building from the skills developed in the Photoshop I course, students learn to customize the Photoshop interface; make use of advanced tools and processes for editing photographs; and develop more refined methods for creating digitally-based images and text. Additional instruction and assignments introduce the fundamentals of photographic practice, graphic design, and color theory. Emphasis is placed on developing the skills and vocabulary for the assessment and analysis of photographs, designs, and other works of art. Digital camera not required. (GC)
GA-160A Computer Graphics I  
$4.00 hrs lecture, $4.00 hrs lab  
Units: 4.00  
Cross-referenced Course: ART-160A  
Accepted For Credit: CSU & UC  
This course is an introduction to creating computer-generated graphics. Students explore software tools and graphic design techniques for the production of computer-made imagery. The course emphasizes the development of graphics following creative principles and covers the principles of graphic design and the creation of graphics for commercial and artistic application. (GC)

GA-160B Computer Graphics II  
$4.00 hrs lecture, $4.00 hrs lab  
Units: 4.00  
Cross-referenced Course: ART-160B  
Prerequisite: GA-160A or ART-160A  
Accepted For Credit: CSU & UC  
This course is a continuation of GA-160A and emphasizes intermediate and advanced skills needed in graphic design. Students complete projects of their choice that show advanced conceptual and visual communication skills and workmanship. (GC)

GA-161A Digital Graphics I  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Cross-referenced Course: ART-161A  
Accepted For Credit: CSU  
This course uses a combination of lectures and hands-on studio experience to introduce students to the creative possibilities of graphic computing. In addition to covering hardware (printers, scanners, drawing tablets) and software (Photoshop and Illustrator), this course emphasizes the visual-problem solving process. Students learn the conceptual and technical foundations of graphic design. The principles taught in this course assist students in the realization of their own ideas and the interpretation of diverse forms of visual communication. Each assignment focuses on a different skill and the results can be included in a professional portfolio for presentation and job searching. (GC)

GA-161B Digital Graphics II  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Cross-referenced Course: ART-161B  
Prerequisite: GA-161A or ART-161A  
Accepted For Credit: CSU  
This course is a continuation of GA-161A. The emphasis in this course is on developing intermediate and advanced skills needed to set up and operate a digital graphics work station and publish on the web. Students complete projects of their choice using complex graphics software, scanners, tablets, and printers. The course emphasis is on the continued development of a portfolio of computer images. (GC)

GA-163 Digital Arts Lab-Macintosh  
27.00 hrs lab  
Units: 0.50  
Cross-referenced Course: ART-163, ID-163  
This course is a lab component for all courses taught on the Macintosh and on drafting equipment in these areas: Art, Graphic Arts/Computer Graphics, Photography, and Interior Design. Students will produce digital graphic and drafting projects for art related classes. (CR)

GA-169A Beginning Digital Photography  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-139A  
Accepted For Credit: CSU & UC  
This course explores the photographer's creative process from several directions. Students undertake photographic projects designed to provide engagement with a variety of subject matter and ways of photographing; look at photographic work in online and local galleries and museums; consider current issues having to do with photographic technologies; discuss their photographs with other students in an effort to improve their creative processes. Technical instruction includes camera functions; resizing and saving digital files; and minor image modification. For intense technical instruction students should see ART-138A and ART-138B. (GC)

GA-169B Intermediate Digital Photography  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-139B  
Prerequisite: GA-169A or ART-139A  
Accepted For Credit: CSU & UC  
This course continues an exploration of the photographer’s creative process from several directions. Students will undertake photographic projects designed to provide engagement with a variety of subject matter and ways of photographing; complete an extended photographic project of their choosing and receive guidance from the instructor and students; look at photographic work in online and local galleries and museums; consider current issues around photographic technologies; discuss their photographs with other students in an effort to improve their creative processes. Students will formalize their individual projects as books or online galleries. Technical instruction will include camera functions, resizing and saving digital files, and minor image modification. For intense technical instruction see GA-138A and GA-138B. (GC)

GA-169C Advanced Digital Photography  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-139C  
Prerequisite: GA-169B or ART-139B  
Accepted For Credit: CSU  
This course continues a series in digital photography to an advanced level, covering topics of importance to photography students planning to make photography a career. Topics include how to work in depth on a project involving public interaction; how to write an artist statement; how to establish a public presence as a photographer; how to market to potential clients; and how to write a statement of work (or job bid) for a potential client. (GC)

NONCREDIT GA COURSE

GA-904 Digital Design Essentials  
6.00 hrs lecture, 6.00 hrs lab  
Units: 0.00  
Advisory: Basic computer and Internet knowledge  
This noncredit course provides students with an overview of design practices and workflows and introduces students to creative software designers used in the industry. Not applicable to associate degree. Repeatable = Unlimited times (CR)
Health (HLTH)

**Division:** Kinesiology, Athletics, and Arts  
**Academic Dean:** Christopher Warden  
**Division Administrative Assistant:** Maria Rocha  
**Location:** Fremont campus, Room 9303  
**Phone number:** 510-659-6044

**HLTH-101 Contemporary Health Issues**  
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course promotes personal, family, and community wellness through an exploration of contemporary issues in health and wellness including exercise and fitness, nutrition, weight control, stress management, mental health, and substance abuse. Students analyze personal health habits that contribute to the risk of disease, and develop a program of wellness that targets the reduction of risk factors for self, family, and the community. (GC) C-ID PHS 100

**HLTH-125 Stress Management**  
36.00 hrs lecture  
Units: 2.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU  
This course is a theoretical approach to understanding sources of stress and incorporating stress management into your daily life. Explore personal stressors, the physical and psychological implications of that stress, prevention strategies, and stress reduction techniques. (GC)

**HLTH-140 Qigong I**  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU & UC  
Qigong is an ancient Chinese health maintenance healing art and energy cultivating system. This course includes basic physical movements, exercises, breathing techniques, static postures, and introduction to self-massage, visualization, and meditation to enhance the flow of Qi throughout the body. (GC)

**HLTH-141 Qigong II**  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU & UC  
This course advances the development of a personal Qigong practice technique through challenging routines and theoretical applications. This practice transcends the mind-body-spirit concept and facilitates the transformation to a more spiritual practice of Qigong. (GC)

**HLTH-150 Women's Health Issues**  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: WS-150  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course is a study of the contemporary issues affecting women’s health at home and at work from biological, psychological, and sociological perspectives. The course will explore such topics as mental health, sexuality, nutrition, exercise, rape and battery, aging, occupational health, and cultural diversity, and the effects on women in American culture. (GC)

**HLTH-160 Human Sexuality**  
$4.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course examines the physiological and psychological aspects of sexual health in our contemporary society. Understanding the interrelationship of attitude and behavior as it relates to sexual integrity is a primary focus. Emphasis will be on knowledge, attitudes, and behavior that contribute to a healthy individual. (GC)

**History (HIST)**

**Division:** Social Sciences  
**Academic Dean:** Ghada Al-Masri  
**Division Administrative Assistant:** Sheila Holland  
**Location:** Fremont campus, Room 3316J  
**Phone number:** 510-659-6216

This department offers Special Projects courses (HIST-201, HIST-202, and HIST-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

**HIST-102A Chicana/o History I**  
$4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: CHS-102A  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course covers the history of the Mexican-American experience from Pre-Columbian times to 1850. The course emphasizes the political, economic, and social influences of Pre-Columbian America, Spain, Mexico, and the United States. The course includes a study of the United States Constitution. (GR)

**HIST-102B Chicana/o History II**  
$4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: CHS-102B  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course covers the history of the Mexican-American experience from 1850 to the present day. The course emphasizes the political, economic, and social experiences of the Mexican American people under the influences of Mexico and the United States, and includes a study of the Constitution of California. (GR)
HIST-104A  Western Civilization with a World Perspective
Until 1600
$4.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course is a survey of the cultural, social, and political developments of civilization in the Mediterranean through the beginning of early modern history. This course takes an interdisciplinary approach to the study of Western Civilization before 1600 and includes a world perspective. (GC) C-ID HIST 170

HIST-104B  Western Civilization with a World Perspective
From 1600
$4.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course is a survey of the cultural, social, and political developments in Western Civilization with a world perspective from the rise of the nation-state through contemporary times with a speculative look at the future. (GC) C-ID HIST 180

HIST-105  History of California
$4.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course covers the history and development of California from its beginnings to the present day with emphasis on the economic, social, ethnic, multicultural, and political forces which shaped the modern state, and includes a comparison of the California and United States Constitutions. (GC)

HIST-106A  World History to 1500
$4.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
History 106A looks at the development of, and interactions between, peoples, states, and civilizations around the world from the end of the Ice Age (pre-history) to circa 1500 CE (Common Era). The course traces the beginnings of agriculture and rise of cities; the coming of world's major religions and intellectual thought; the rise and fall of empires; routes of trade and migration; and calamities that have parallels with present day, including the impact of human settlement upon the natural world. (GC) C-ID HIST 150

HIST-106B  World History Since 1500
$4.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
History 106B analyzes the development of societies and interactions of cultures in Asia, Africa, Europe, and the Americas from 1500 to the present, with an emphasis on their global interactions. The course focuses on trading networks; empires; colonization and decolonization; the rise of modern imperialism; capitalism and its opponents; urbanization and mass communication; technologies for war and peace; and calamities that have parallels with present day, including the impact of human settlement upon the natural world. (GC) C-ID HIST 160

HIST-107  History of Film
$4.00 hrs lecture
Units: 3.00
Cross-referenced Course: TD-107
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course examines the impact of film on our lives and history. Students will review films; discuss and analyze techniques used. (GR)

HIST-109  History of Modern East Asia
$4.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course is an introduction to the history of modern East Asia from 1600 to the present, focusing on the intersecting histories of China, Japan, and Korea. The course emphasizes the development of political, economic, and cultural traditions in East Asia as part of a larger story of global change in the modern period, with special attention paid to revolutionary movements; governmental structure; the influence of Europe and the United States on regional economies and statecraft; and literary and artistic production. (GR)

HIST-110  History of Modern Latin America
$4.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course provides an introduction to the cultural, economic, and political history of modern Latin America, exploring the complex historical changes that occurred in Central and South America from European colonization to the present, focusing on the development of national systems of governance in the nineteenth century through to the pressures of globalization at the start of the twenty-first century. While emphasizing issues of cultural development and political economy via the exploration of specific case studies, the course is by nature interdisciplinary, with attention paid to social structures, art, literature, film, and cultural studies to build an appreciation for the interplay of scholarship throughout the social sciences and the humanities. (GR)

HIST-113  History of Modern Middle East
$4.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course provides an introduction to the cultural, economic, and political history of modern Middle East, exploring the complex historical changes that occurred throughout this region from the eighteenth century to the present. The course begins with an overview of the pre-modern period before turning to political, social, cultural, and economic issues of the modern era. Topics include the Arab-Israeli conflict; the collapse of regional empires; cultural and social developments during and after colonial rule; the preoccupation with authoritarian rule; challenges to economic development; the rise of Islamic political movements in the twentieth century; and the rise of social, political, and cultural movements in the twenty-first century. (GR)

HIST-114A  African American History 1619 to 1877
$4.00 hrs lecture
Units: 3.00
Advisory: ENGL-151B and/or ENGL-163
Accepted For Credit: CSU & UC
This course covers the history of African Americans from the early 17th century to 1877. Political, social, cultural, and economic experiences will be discussed. (GC)
HIST-114B African American History 1877 to Present
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-163
Accepted For Credit: CSU & UC
A history of African Americans from 1877 to present will be covered. Political, social, cultural, and economic experiences will be discussed. (GC)

HIST-115 Asian-American History
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course is a review of Asian Pacific Americans in the social, political, economic, and cultural development of the United States from Reconstruction to the present. Groups surveyed will include Korean, Filipino, Asian Indian, Pacific Islanders, South East Asian, Japanese, and Chinese. (GC)

HIST-116 Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course is an interdisciplinary, multicultural exploration of Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) people, focusing on the historical, cultural, and social contexts of LGBTQ life. Using primary and secondary texts from a range of fields in the humanities and the social sciences, students will consider the histories of LGBTQ people/communities as well as contemporary LGBTQ politics and society; theories about sexuality and sexual identity; and cultural production including literature, film, and other genres in mass culture. (GR) C-ID SJS 130

HIST-117A History of the United States
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course surveys the history of the United States from pre-colonial times through Reconstruction (1877). (GR) C-ID HIST 130

HIST-117B History of the United States
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course surveys the history of the United States from 1877 (the end of Reconstruction) to the present. (GR) C-ID HIST 140

HIST-118 Contemporary U.S. History: 1945-
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course surveys the post-World War II role of the United States in world affairs and explores the socio-political development of the nation from 1945 to the present. The course will emphasize the growing cultural pluralism of twentieth century America. (GC)

HIST-119A Bad Girls: Women in America Before 1890
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
Women before 1890 faced numerous hardships in their struggles for equality. This course traces women of different racial and ethnic backgrounds as they challenge social, economic, political, and gender norms in North America. The course explores how women have negotiated issues such as race, class, gender, work/labor, and sexuality. (GC)

HIST-119B Bad Girls: Women in America From 1890
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
Women in the United States after 1890 faced numerous hardships in their struggles for equality. This course traces women of different racial and ethnic backgrounds as they challenge social, economic, political, and gender norms in North America. The course explores how women have negotiated issues such as race, class, gender, work/labor, and sexuality. (GC)

HIST-141 History of Rock and Roll: Music and Culture of the 1950's
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: IS-142, MUS-122
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course presents a historical overview of the emergence of rock and roll music as a cultural phenomenon in the U.S. The major figures of the 1950's—Bill Haley, Fats Domino, Elvis Presley, Chuck Berry, and Little Richard—will be studied alongside the major historical events and trends that shaped this decade. The course is designed to gradually develop a student's appreciation for this art form while simultaneously exposing the symbiotic interrelationship between rock and roll and American culture. The course will chart how rock and roll simultaneously reflects and affects society by grounding the key people, events, and songs within their historical context. (GC) C-ID SJS 130

HIST-142 History of Rock and Roll: Music and Culture of the 1960's
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: IS-143, MUS-123
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course charts the evolution of rock and roll music from the late 1950's through the 1960's, focusing on the history of the period as well as a detailed analysis of the stylistic development of this important musical genre. The course is designed to gradually develop students' appreciation for this art form while simultaneously exposing the symbiotic interrelationship between rock and American culture. (GC)

HIST-143 History of Rock and Roll: Music and Culture Since 1970
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: MUS-125
Accepted For Credit: CSU & UC
This course examines the development of popular music and its integration with general culture and society since 1970 and into the new millennium. The course will include identification and analysis of art rock, disco, new wave, reggae, rap, hip-hop, worldbeat, and other musical genres. (GR)
**Interdisciplinary Studies (IS)**

**Division:** Social Sciences  
**Academic Dean:** Ghada Al-Masri  
**Division Administrative Assistant:** Sheila Holland  
**Location:** Fremont campus, Room 3316J  
**Phone number:** 510-659-6216

**IS-100**  
**Survey of the Arts**  
$4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: ART-100, MUS-100, TD-100  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
Art, music, and theatre are explored in this course through discussion, historical review, and contemporary issues. The purpose of this course is to increase student's understanding and enjoyment of the arts. The course is taught by three instructors, one from each discipline. (GR)

**IS-110**  
**Introduction to Ethnic Studies**  
$4.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course offers an interdisciplinary approach to racial and ethnic relations, primarily situated in a sociological analysis of race, ethnicity, and racism. Students will examine the cultural, political, and economic practices and institutions that support or challenge ethnic inequalities, as well as historical and contemporary patterns of interaction between various racial and ethnic groups. This course introduces students to some of the historical experiences of selected ethnic minority communities in the United States. There is an emphasis on how these experiences affect how minorities view themselves in relationship to the larger United States society. (GC) C-ID SOCI 150

**IS-142**  
**History of Rock and Roll: Music and Culture of the 1950's**  
$4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: HIST-141, MUS-122  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course presents a historical overview of the emergence of rock and roll music as a cultural phenomenon in the U.S. The major figures of the 1950's—Bill Haley, Fats Domino, Elvis Presley, Chuck Berry, and Little Richard—will be studied alongside the major historical events and trends that shaped this decade. The course is designed to gradually develop a student's appreciation for this art form while simultaneously exposing the symbiotic interrelationship between rock and American culture. The course will chart how rock and roll simultaneously reflects and affects society by grounding the key people, events, and songs within their historical context. (GC)

**IS-143**  
**History of Rock and Roll: Music and Culture of the 1960's**  
$4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: HIST-142, MUS-123  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course charts the evolution of rock and roll music from the late 1950's through the 1960's, focusing on the history of the period as well as a detailed analysis of the stylistic development of this important musical genre. The course is designed to gradually develop students' appreciation for this art form while simultaneously exposing the symbiotic interrelationship between rock and American society. (GC)

**Interior Design (ID)**

**Division:** Kinesiology, Athletics, and Arts  
**Academic Dean:** Christopher Warden  
**Division Administrative Assistant:** Maria Rocha  
**Location:** Fremont campus, Room 9303  
**Phone number:** 510-659-6044

**ID-150A**  
**Interior Design Concepts**  
$4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: ART-150A  
Accepted For Credit: CSU  
In this introductory course students analyze interiors using basic design concepts. Principles and techniques used by professional interior designers are demonstrated. Case studies in problem solving with an emphasis on residential interiors are presented. (GC) C-ID SOCI 150

**ID-150B**  
**Interior Design**  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-150B  
Prerequisite: ID-150A or ART-150A  
Accepted For Credit: CSU  
This course is a continuation of ID-150A and is designed for Interior Design majors. Interior design theories and methodologies are explored in-depth through a variety of increasingly complex “Real Life” case study projects that emphasize the design of public spaces. The course will help prepare students for professional practice. (GC)

**ID-151**  
**Visualization and Presentation**  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-151  
Accepted For Credit: CSU  
This course familiarizes students with methods and materials used in the design industry to develop concepts and communicate ideas. Students will prepare projects for a design portfolio. (GC)
ID-153  History of Decorative Arts  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: ART-153  
Accepted For Credit: CSU & UC  
Students study furniture construction, styles, and periods in conjunction with the architecture and related decorative arts of each era from ancient times to the present. This course includes political, religious, and cultural histories which significantly influenced these arts. (GC)

ID-154  Contemporary Home Design  
36.00 hrs lecture  
Units: 2.00  
Cross-referenced Course: ART-154  
Accepted For Credit: CSU  
Students study the architectural history of home design and learn practical applications of information relating to design, construction methods, and economic practices. (GC)

ID-155A  Architectural Drafting for Interior Design  
36.00 hrs lecture  
72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-155A  
Advisory: Concurrent with ART-163, GA-163, or ID-163  
Accepted For Credit: CSU  
This course will introduce basic drafting techniques as related to architectural working drawings for interior design. Construction materials and procedures will be discussed. (GC)

ID-155B  CAD for Interior Design  
36.00 hrs lecture  
72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-155B  
Advisory: ID-155A or ART-155A  
Accepted For Credit: CSU  
This course focuses on the fundamentals of computer-aided drafting as related to interior design and architectural drawings. Understanding CAD concepts and using commands are emphasized. Drawing skills are learned and developed by applying these concepts to solve practical laboratory problems. (GC)

ID-155C  Intermediate CAD for Interior Design  
36.00 hrs lecture  
72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-155C  
Prerequisite: ID-155B or ART-155B  
Accepted For Credit: CSU  
This course is a continuation of ID-155B and focuses on developing computer-aided drafting skills as related to interior design and architectural drawings. Applying CAD concepts and practicing commands are emphasized. Drawing skills are refined by applying these concepts to practical laboratory problems. (GC)

ID-156  Architectural Modelmaking for Interior Design  
36.00 hrs lecture  
72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-156  
Accepted For Credit: CSU  
Scale models will be developed in this course for presenting and studying architectural interior spaces. A wide range of materials and processes will be explored. (GC)

ID-157  Professional Practice for Interior Design  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: ART-157  
This course introduces basic business practices for interior designers. The course includes an overview of career paths, business planning and organization, professional associations, marketing, sales, wholesale resource development, contractual obligations, and ethics. The course is designed for people preparing to enter the field of interior design. (GC)

ID-158  Textiles  
36.00 hrs lecture  
72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-158  
Accepted For Credit: CSU & UC  
This is a comprehensive course in the study of textiles as related to interior design. Fiber and fabric construction and characteristics are examined; textile choices are evaluated and analyzed for safety, functionality, and aesthetics; and the impacts of textiles on interior environments are considered. Students gain an empirical understanding of the nature of textiles through hands-on projects in the laboratory component. (GC)

ID-159A  Applied Design: Residential Lighting  
18.00 hrs lecture  
Units: 1.00  
Cross-referenced Course: ART-159A  
Accepted For Credit: CSU  
This course will present an overview of basic considerations necessary to plan, choose, and place lighting fixtures throughout a home. This helps define space, articulate atmosphere, direct attention, and facilitate activities. (GC)

ID-159B  Applied Design: Color for the Home  
18.00 hrs lecture  
Units: 1.00  
Cross-referenced Course: ART-159B  
Accepted For Credit: CSU  
This course will explore theoretical and experiential approaches to choosing color schemes for residences. (GC)

ID-163  Digital Arts Lab-Macintosh  
27.00 hrs lab  
Units: 0.50  
Cross-referenced Course: ART-163, GA-163  
This course is a lab component for all courses taught on the Macintosh and on drafting equipment in these areas: Art, Graphic Arts/Computer Graphics, Photography, and Interior Design. Students will produce digital graphic and drafting projects for art related classes. (CR)
Interpreter Training (INT)

Division: Deaf Studies
Interim Academic Dean: Robert Gabriel
Division Administrative Assistant: Nora Chopelas
Location: Fremont campus, Room 6203
Phone number: 510-659-6269

This department offers a Special Projects course (INT-201). Please see page 156 of this catalog for more information regarding Special Projects courses.

INT-106 Discourse Analysis: ASL
54.00 hrs lecture
Units: 3.00
Prerequisite: Admission to the Interpreter Preparation Program
Accepted For Credit: CSU
This course is an overview of ASL discourse. Topics include discourse structure, language variation, genre, register, prosody, cohesion, turn-taking and backchanneling, and gendered communication. Transcription conventions are reviewed for noting language samples. An external drive (USB) is required for the course to document students' ASL work. (GR)

INT-107 Interpreter Orientation
54.00 hrs lecture
Units: 3.00
Prerequisite: Admission to the Interpreter Preparation Program
Accepted For Credit: CSU
This course provides students with a working knowledge of the interpreting profession, and examines basic principles and practices of interpreting. The course also examines student strengths and weaknesses as they relate to interpreting and working with Deaf people as well as developing and assessing interactional skills needed for working in a practice profession. (GR)

INT-112 Comparative Linguistics: ASL and English
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Prerequisite: Admission to the Interpreter Preparation Program
Accepted For Credit: CSU
This course is designed for first year Interpreting Preparation Program students. The syntactic structures of ASL are reviewed, followed by an in-depth study of English syntax as it relates to semantics and interpreting. (GR)

INT-115 Interpreting Preparation Skills
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Prerequisite: Admission to the Interpreter Preparation Program
Accepted For Credit: CSU
This course provides the theoretical basis for interpretation. The interpreting process is broken down into process parts, isolated, and then practiced. Skills include memory discrimination, cloze, summarizing, and paraphrasing skills. ASL transcription and translation work and expressive fingerspelling are also practiced. (GR)

INT-116 Discourse Analysis: English
54.00 hrs lecture
Units: 3.00
Prerequisite: Admission to the Interpreter Preparation Program
Accepted For Credit: CSU
This course is an overview of English discourse. Topics include discourse structure, language variation, genre, register, prosody, cohesion, turn-taking, and gendered communication. Transcription conventions will be reviewed for noting language samples. (GR)

INT-127 Ethics I
18.00 hrs lecture
Units: 1.00
Prerequisite: Admission to the Interpreter Preparation Program
Accepted For Credit: CSU
This course will focus on identifying and exploring students' personal ethics and beliefs as well as those of the majority culture in the United States. (GR)

INT-145 Practicum: Deaf Mentorship
243.00 hrs lab
Units: 4.50
Prerequisite: INT-115
Accepted For Credit: CSU
This course is designed to provide Interpreter Preparation Program students with a variety of experiences with Deaf adults. Students may be provided the opportunity to do some low-risk interpreting. A weekly seminar is included to process experiences of practicum experience. (GR)

INT-147 Introduction to Interpreting for People Who Are Deaf/Blind
36.00 hrs lecture
Units: 2.00
Prerequisite: Admission to the Interpreter Preparation Program or working Deaf and hearing interpreters with instructor's consent
Accepted For Credit: CSU
This course introduces and prepares students to work as interpreters effectively and comfortably with individuals who are deaf-blind and/or serve as a Student Service Provider (SSP). (GR)
**INT-193**

*Interpreting: ASL to English*

72.00 hrs lecture, 108.00 hrs lab

Units: 6.00

Prerequisite: INT-115

Accepted For Credit: CSU

The focus of this course is interpreting from ASL into spoken English. Texts will be analyzed for language use, meaning, and interpreted into English, both written and spoken. Consecutive and simultaneous interpreting will be studied and practiced. (GR)

**INT-199A**

*Introduction to Multicultural Issues in Interpreting*

18.00 hrs lecture

Units: 1.00

Prerequisite: Admission to the Interpreter Preparation Program or working Deaf and hearing interpreters with instructor's consent

Accepted For Credit: CSU

This course introduces students to multicultural issues important to people working in a helping profession. The course focuses on students’ understanding of self and relationships with marginalized groups including but not limited to ethnic minorities, LGBTQ people, people of various socio-economic status, and immigrant communities. (GR)

**INT-199B**

*Introduction to Oral Facilitation*

9.00 hrs lecture

Units: 0.50

Prerequisite: Admission to the Interpreter Preparation Program or Deaf and hearing interpreters with instructor's consent

Accepted For Credit: CSU

This course introduces students to working with Deaf people who do not know sign language. Techniques for oral transmission of information are covered. Students must have a portable flash drive or alternative way to store and transport electronic data. (GR)

**INT-199C**

*Introduction to Medical Interpreting*

18.00 hrs lecture

Units: 1.00

Prerequisite: Admission to the Interpreter Preparation Program or Deaf and hearing interpreters with instructor's consent

Accepted For Credit: CSU

This course introduces students to interpreting in the medical setting. Topics include the wide variety of situations and consumers in the medical setting, environmental considerations, interpersonal considerations, medical discourse, situational ethics, and resources. (GR)

**INT-199D**

*Introduction to Educational Interpreting K-12*

18.00 hrs lecture

Units: 1.00

Prerequisite: Admission to the Interpreter Preparation Program or Deaf and hearing interpreters with instructor's consent

Accepted For Credit: CSU

This course provides an introduction to interpreting in the educational setting with a focus on elementary and secondary levels of education. Emphasis includes child development through the years; resource development; team building; roles and responsibilities; communicating with children; and situational ethics. (GC)

**INT-199E**

*Introduction to Post-Secondary Interpreting*

9.00 hrs lecture

Units: 0.50

Prerequisite: Admission to the Interpreter Preparation Program or Deaf and hearing interpreters with instructor's consent

Accepted For Credit: CSU

This course is an introduction to interpreting in the post-secondary educational setting. The focus of this course is on the roles and responsibilities of the interpreter; language assessment; resource development; situational ethics; identifying demands and controls in the wide variety of post-educational settings; and team building. Students need a portable flash drive or alternative way to store and transport electronic data. Students also need to purchase a GoReact course membership. (GR)

**INT-199F**

*Introduction to Social Service and Employment Interpreting*

9.00 hrs lecture

Units: 0.50

Prerequisite: Admission to the Interpreter Preparation Program or Deaf and hearing interpreters with instructor's consent

Accepted For Credit: CSU

This course introduces students to interpreting in social services, pre-employment, and employment settings where a wide variety of consumers seek essential services for survival, becoming job ready, and becoming employed. Students practice interpreting, incorporating strategies informed by analyses of consumer experiences, discourse, and vocabulary unique to these settings, preparation, and interpreting skills. (GC)

**INT-199G**

*Introduction to Telephone and Video Relay Interpreting*

9.00 hrs lecture

Units: 0.50

Prerequisite: Admission to the Interpreter Preparation Program or Deaf and hearing interpreters with instructor's consent

Accepted For Credit: CSU

This course introduces students to interpreting using the telephone and video, interpreting remotely. Unique characteristics of this medium, strategies, discourse styles as well as environmental, interpersonal, paralinguistic, and intra-personal considerations are discussed. Ethics are also considered. (GC)

**INT-199H**

*Introduction to Mental Health Interpreting*

9.00 hrs lecture

Units: 0.50

Prerequisite: INT-245, INT-253, INT-227 and various INT-199 courses

Corequisite: IPP students must be enrolled in other third and/or fourth semester courses. Working interpreters and Deaf interpreters must have consent of instructor or program director.

Accepted For Credit: CSU

This course introduces students to interpreting in the mental health setting. Topics include the wide variety of situations and consumers in the setting, environmental considerations, interpersonal considerations, mental health discourse, situational ethics, and resources. (GC)
INT-199I  Introduction to Deaf/Hearing Team Interpreting
9.00 hrs lecture
Units: 0.50
Prerequisite: Admission to the Interpreter Preparation Program
or working Deaf and hearing interpreters with instructor's
consent
Accepted For Credit: CSU
This course introduces students to working in teams with
hearing and Deaf interpreters. Topics include advocating
for the use of Deaf/hearing teams, environmental and
interpersonal considerations, team development, negotiating
strategies of working together, and ethical and cultural
considerations. (GR)

INT-227  Ethics II: Interpreting Ethics and Decision-Making
54.00 hrs lecture
Units: 3.00
Prerequisite: INT-153
Accepted For Credit: CSU
Through lecture, discussion, and role play, this course will
cover ethics as it relates to the field of sign language
interpreting; the Code of Professional Conduct (CPC) from
the Registry of Interpreters for the Deaf (RID); professional
behavior; and liability and preparation for the ethical portion
of the national RID exam. Demand-Control Schema (DCS)
will be the lens used to determine effectiveness of actions
taken by interpreters. This course is intended for Interpreter
Preparation Program students. (GR)

INT-245  Phantom Interpreting
54.00 hrs lab
Units: 1.00
Prerequisite: INT-153
Accepted For Credit: CSU
In this course students will apply knowledge gained in the
first year courses by interpreting live situations on campus
and in the community. Students will apply Demand-Control
schema analysis of situations and assignment preparation.
(GR)

INT-253  Interpreting: English to ASL
72.00 hrs lecture, 108.00 hrs lab
Units: 6.00
Prerequisite: INT-153
Accepted For Credit: CSU
The focus of this course is interpreting from English into
ASL. Texts will be analyzed for language use, meaning, and
interpreted into ASL. Consecutive and simultaneous
interpreting will be studied and practiced. (GR)

INT-263  Interpreting Across the Language Continuum
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: INT-253
Accepted For Credit: CSU
The focus of this course is to interpret and match a wide
range of language varieties that exist in the Deaf community.
Monologic and dialogic/interactive texts will be presented.
Live and pre-recorded stimulus will be used. This course is
intended for students in the fourth semester of the Interpreter
Preparation Program. (GR)

INT-295  Interpreting Internship
243.00 hrs lab
Units: 4.50
Prerequisite: INT-253
Accepted For Credit: CSU
This course is designed to give IPP students a concentrated
field experience in interpreting. Students will spend 180
hours working in at least two facilities providing ASL-English
interpreting services to Deaf and hearing individuals. Students
will have on-site mentors and site-supervisors. (GR)

INT-299  Capstone Course
54.00 hrs lab
Units: 1.00
Prerequisite: INT-227, INT-245, INT-253, and INT-199 series
courses
Corequisite: INT-263, INT-295, and various INT-199 courses
Accepted For Credit: CSU
This is the final course of the IPP. Students will interpret
analyze and present a piece of work for a panel. Students
will also create their exit portfolio. (GR)

Japanese  (JPNS)
Division: Language, Communication, and Academic Success
Academic Dean: Mark Lieu
Division Administrative Assistant: Dana Pope
Location: Fremont campus, Room 3420K
Phone number: 510-659-6173

JPNS-101A  Elementary Japanese
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
Introduction to speaking, understanding, reading, and writing
Japanese. A communicative approach to the acquisition of
the language with emphasis on the appreciation of the culture.
(GR)

JPNS-101B  Elementary Japanese
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: JPNS-101A or two years of high school Japanese
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course is a continuation of speaking, understanding,
reading, and writing Japanese. A communicative approach
to the acquisition of the language with emphasis on the
appreciation of the culture. (GR)

JPNS-102A  Intermediate Japanese
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: JPNS-101B or three years of high school Japanese
Accepted For Credit: CSU & UC
This course is a continuation of JPNS-101B with emphasis
on the four areas of listening, speaking, reading, and writing
in Japanese, as well as a greater in-depth study of Japanese
culture. (GR)
Journalism (JOUR)

Division: Language, Communication, and Academic Success
Academic Dean: Mark Lieu
Division Administrative Assistant: Dana Pope
Location: Fremont campus, Room 3420K
Phone number: 510-659-6173

This department offers Special Projects courses (JOUR-201, JOUR-202, and JOUR-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

JOUR-101A Newswriting
54.00 hrs lecture
Units: 3.00
Prerequisite: ENGL-101A
Accepted For Credit: CSU & UC
This course trains students in newswriting techniques, interviewing, feature writing, ethics, and legal responsibilities. Online and broadcasting newswriting techniques are included. (GR) C-ID JOUR 110

JOUR-106 Reading Banned Books
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: ENGL-106
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course provides a study of literature that has been banned or censored. (GR)

JOUR-132 Introduction to Public Relations
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU
Students will explore the field and practice of public relations, including public relations history, theories, and techniques. Students will employ practical approaches to creating press releases and organizing and executing public relations campaigns. Organizing and executing a public relations campaign includes print, photo, online, and video elements. Finally, students will practice ethical and research based responses to challenges facing organizations. This course is appropriate for any student interested in working in the mass media field. (GC)

JOUR-146 Beginning Photography/Graphic Arts Newspaper Staff
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Cross-referenced Course: ART-146
Advisory: ART-106A or ART-133A
Accepted For Credit: CSU
Students serve as newspaper staff members to initiate, plan, and complete photographic or graphic assignments for publication in the college newspaper and/or magazine. Training emphasizes use of techniques and skills that communicate ideas effectively to a mass media audience. Photographers and artists have access to digital cameras, computers, scanners, and software for completion of assignments. Students are also introduced to legal and ethical responsibilities. Students are expected to produce one photo/graphic per issue. (GC)

JOUR-147 Advanced Photography/Graphic Arts Newspaper Staff
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Cross-referenced Course: ART-147
Advisory: ART-106A or ART-133A
Accepted For Credit: CSU
Staff members initiate, plan, and complete photographic or graphic assignments for publication in the college newspaper and/or magazine. Training emphasizes use of techniques and skills that communicate ideas effectively to a mass media audience. Photographers and artists have access to digital cameras, computers, scanners, and software for completion of assignments. Students are also introduced to legal and ethical responsibilities. Students are responsible for specific areas, such as sports, and are expected to produce two photos or graphics per issue. (GC)

JOUR-148 Photography/Graphic Arts Newspaper Editor
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Cross-referenced Course: ART-148
Advisory: JOUR-146, JOUR-147
Accepted For Credit: CSU
This course is for photo or graphic student editors who will initiate, plan, and complete photographic or graphic assignments for publication in the college newspaper and/or magazine. Student editors are responsible for training photographers and graphic artists in the use of techniques and skills that communicate ideas effectively to a mass media audience. Legal and ethical responsibilities will also be addressed. (GC)

JOUR-155 Mass Media and Society
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: BRDC-155
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
We swim in an ocean of media. Our thoughts, beliefs, life choices, jobs, government, and shopping decisions are all influenced by the media. Most of us complain about it, but we wouldn’t turn the media off, even if we could. Yet we don’t know much about it. Who decides what messages get sent? What do the senders want? How do we process the messages? How does the technology work? Your media exposure will continue for the rest of your life. This course aims to make you a more informed, and a critical consumer. (GR) C-ID JOUR 100

Did you know???
The student newspaper, the Monitor, used to be called the Saints Herald. The first issue was published on November 2, 1967.
Kinesiology (KIN)

Division: Kinesiology, Athletics, and Arts
Academic Dean: Christopher Warden
Division Administrative Assistant: Maria Rocha
Location: Fremont campus, Room 9303
Phone number: 510-659-6044

This department offers Special Projects courses (KIN-201 and KIN-202). Please see page 156 of this catalog for more information regarding Special Projects courses.

KIN-240 Introduction to Kinesiology
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course is designed to introduce students to the fields of physical education, exercise science, and allied health. The history and trends of physical education and the human movement sciences will be discussed. Also included in the course will be the career options covering areas such as exercise physiology, biomechanics, motor learning, sports pedagogy, sports sociology, and related areas in athletic training, sports management, and allied health. (GC) C-ID KIN 100

KIN-250 First Aid and CPR
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course involves the theory and detailed demonstration of first aid care of an injured individual. Students learn to assess the condition of a victim and incorporate proper treatment. Standard first aid, CPR, and AED certifications are optional upon successful completion of course requirements. (GC)

KIN-251 Fitness for Life
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course is designed for students who wish to understand methods of assessment for cardiovascular fitness, muscular strength and endurance, flexibility, body composition, nutrition, and stress level. These concepts can then be used as a basis for designing and implementing a personal fitness program and increasing awareness regarding enhanced quality of life. (GC)

KIN-257 Prevention and Care of Athletic Injuries
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Accepted For Credit: CSU & UC
This is a course designed to introduce basic prevention and care of athletic injuries. Concepts will include injury recognition, evaluation, management, and rehabilitation. The practical experience will include taping and protective padding techniques, determining vital signs, and emergency first aid procedures as applied to athletic injuries. (GR)

KIN-258 Exercise Prescription
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course is designed to introduce principles of exercise prescription. This course is preparatory for the National Academy of Sports Medicine (NASM) Certified Personal Trainer (CPT) examination. Topics will include exercise physiology applications, exercise program design, exercise program components and applications, and nutritional considerations relating to exercise. (GC)

KIN-381 Clinical Experiences in Athletic Training I
54.00 hrs lab
Units: 1.00
Accepted For Credit: CSU
Advisory: KIN-257
This course provides students with practical exposure to the athletic training room setting. Students will observe and participate under direct supervision in the treatment, evaluation, and rehabilitation of student-athletes injured during practices or competitions. Students will practice the application of athletic training techniques and procedures according to protocols established by the athletic trainer. (CR)

KIN-382 Clinical Experiences in Athletic Training II
108.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
Advisory: KIN-381
This course provides students with practical exposure to the athletic training room setting. Students will actively participate under direct supervision in the treatment, evaluation, and rehabilitation of student-athletes injured during practices or competitions. Students will practice the application of athletic training procedures according to protocols established by the athletic trainer. (CR)
Law Enforcement (LE)

Division: Social Sciences
Academic Dean: Ghada Al-Masri
Division Administrative Assistant: Sheila Holland
Location: Fremont campus, Room 3316J
Phone number: 510-659-6216

Ohlone College is a member of the South Bay Regional Public Safety Training Consortium. Vocational training courses are offered in various areas including, but not limited to, the following: Correctional Officer, Law Enforcement Officer, Reserve Police Officer, Dispatcher, Fire Technology, Probation Officer, and Juvenile Hall Counselor. The Consortium is funded by various regional community colleges to provide vocation-specific training which may require special facilities, special training conditions, or is presented outside of the schedules of regular college classes. Students who would like a schedule of these classes or more information on specific programs may call 408-229-4299.

The application and registration process is completed at the South Bay Regional Public Safety Training Consortium located at 560 Bailey Avenue in San Jose. Although open to the public, the majority of these courses are intended to serve the already employed. Students who would like information about a career in any of these programs should call 408-229-4299.

---

Did you know???

More than half of California veterans receiving GI educational benefits attend a community college.

*Source: Community College League of California*
LE-236  Dispatch Advanced Radio Communications  
36.00 hrs lecture, 180.00 hrs lab  
Units: 5.00  
Prerequisite: Familiarity with and ability to demonstrate the following skills: Communication center radio equipment components and their functions; back-up radios/ microphones; penal and vehicle code books; welfare and institutions; health and safety; business and professions; government code; municipal/county; maps and street guides; Thomas Guide; city/county; district/beat/run/sector; geographic information systems (GIS); township and range; public services: city/county maintenance/towing, city, county, state, and federal government. 
This course will enhance police dispatching skills, as the course specifically focuses on radio communications. Students will study codes and departmental procedures and will respond to calls ranging from traffic emergencies to potentially dangerous situations. Not applicable to associate degree. Repeatable = Unlimited times (CR)

LE-240  Communications Training Officer  
32.00 hrs lecture, 8.00 hrs lab  
Units: 1.00  
Advisory: Basic Public Safety Dispatch or equivalent  
This course is to educate communications trainers to their responsibilities and roles in training new dispatchers. This course will provide students with the skills necessary to effectively manage the demand of their specific training assignment. This program includes topics as the role of the trainer, elements of instruction, legal aspects and liabilities, evaluations and documentation, critical incident stress, and practical exercises. Not applicable to associate degree. Repeatable = Unlimited times (GR)

Learning Skills Program (LSP)

Division: Counseling, Student Support, and Success  
Dean: Andree Thomas  
Division Administrative Assistant: Shawna Lujan  
Location: Fremont campus, Room 7322  
Phone number: 510-659-6037  

This department offers Special Projects courses (LSP-201 and LSP-202). Please see page 156 of this catalog for more information regarding Special Projects courses.

LSP-101  Learning Skills: Writing Fundamentals  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: Approval of SAS counselor  
This course assists students with learning challenges to develop skills for the successful completion of English courses. Focus is on creating a more thorough understanding of grammatical concepts while strengthening basic writing skills. Compensatory techniques and assistive technology will be taught with an emphasis on multi-modal learning. Not applicable to associate degree. (GR)

LSP-102  Learning Skills: Quantitative Reasoning  
54.00 hrs lecture  
Units: 3.00  
This course assists Learning Disabled students in developing skills for the successful completion of math courses. Focus is on creating a more thorough understanding of math concepts through practice and multi-modal learning. Not applicable to associate degree. (GR)

LSP-103  Advanced Writing Fundamentals  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: Approval of SAS counselor  
This course assists students with learning difficulties to build skills in English grammar and usage in order to write clear paragraphs and informal essays. Concentration is on raising the level of writing for success in mainstream college composition classes. Not applicable to associate degree. (GR)

Library Science (LS)

Division: Language, Communication, and Academic Success  
Academic Dean: Mark Lieu  
Division Administrative Assistant: Dana Pope  
Location: Fremont campus, Room 3420K  
Phone number: 510-659-6173  

LS-101  Steps to Successful Research  
18.00 hrs lecture  
Units: 1.00  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course introduces students to information retrieval and evaluation. Students choose a topic; design a research strategy; find and evaluate online and print sources relating to their topic; and create an annotated bibliography as a final project. (CR)

LS-151  Internet for Research  
9.00 hrs lecture  
Units: 0.50  
Cross-referenced Course: CS-151  
Accepted For Credit: CSU  
This course focuses on finding and evaluating information on the Internet for academic research. The course introduces students to the principles of Internet search strategies, citation styles, and how to avoid plagiarism. (CR)
This department offers a Special Projects course (MATH-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

MATH-101A Calculus with Analytic Geometry
90.00 hrs lecture
Units: 5.00
Prerequisite: MATH-187, MATH-188, or placement evaluation
Accepted For Credit: CSU & UC
This course includes a review of functions and graphs; elements of analytic geometry; limits; continuity; differentiation of algebraic, trigonometric, logarithmic, exponential, and inverse trigonometric functions; applications of the derivative; introduction to integration; and some applications of the definite integral. (GR) C-ID MATH 210

MATH-101B Calculus with Analytic Geometry
90.00 hrs lecture
Units: 5.00
Prerequisite: MATH-101A
Accepted For Credit: CSU & UC
This course includes techniques of integration, related applications, infinite series, and an advanced treatment of conics, parametric equations, and polar coordinates. (GR) C-ID MATH 220

MATH-101C Calculus with Analytic Geometry
90.00 hrs lecture
Units: 5.00
Prerequisite: MATH-101B
Accepted For Credit: CSU & UC
This course includes vector analysis, functions of several variables, partial derivatives, multiple integration, integration of vector valued functions, and applications. (GR) C-ID MATH 230

MATH-103 Introduction to Linear Algebra
54.00 hrs lecture
Units: 3.00
Prerequisite: MATH-101B
Accepted For Credit: CSU & UC
This course includes an introduction to linear algebra including vector spaces, matrices, determinants, linear transformations, eigenvectors, techniques of solving systems of equations, and applications. (GR) C-ID MATH 240

MATH-111 Introduction to Matlab for Engineers
54.00 hrs lecture
Units: 3.00
Prerequisite: MATH-101A
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course provides an introduction to the software package Matlab with an emphasis on topics in the mathematical sciences. (GR)

MATH-151 Algebra I
90.00 hrs lecture
Units: 5.00
Prerequisite: MATH-191 or MATH-192
This course includes the study of operations on algebraic expressions, linear equations and inequalities, graphs of linear equations, systems of equations (two variables), exponents, polynomials, factoring, and rational expressions. Not applicable to associate degree. (GR)

MATH-151A Algebra I (Part 1)
54.00 hrs lecture
Units: 2.50
Prerequisite: MATH-191 or MATH-192
This course includes operations using signed numbers, equations (two variables) and inequalities, graphs, and an introduction to systems of equations. The course emphasizes problem-solving skills. Not applicable to associate degree. (GR)

MATH-151B Algebra I (Part 2)
54.00 hrs lecture
Units: 2.50
Prerequisite: MATH-151A
This course includes exponents, polynomials, factoring, rational expressions, and applications. Not applicable to associate degree. (GR)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH-152</td>
<td>Algebra II</td>
<td>90.00</td>
<td>5.00</td>
<td>MATH-151; MATH-151A and MATH-151B; or placement evaluation</td>
<td>This course includes the study of systems of equations; relations; functions and their graphs; conic sections; exponential and logarithmic functions; arithmetic and geometric sequences and series; and the binomial theorem. (GR)</td>
</tr>
<tr>
<td>MATH-152A</td>
<td>Algebra II (Part 1)</td>
<td>54.00</td>
<td>2.50</td>
<td>MATH-151; MATH-151A and MATH-151B; or placement evaluation</td>
<td>This course includes the study of functions, systems of linear equations, inequalities, radical expressions, equations, problem solving, and complex numbers. (GR)</td>
</tr>
<tr>
<td>MATH-152B</td>
<td>Algebra II (Part 2)</td>
<td>54.00</td>
<td>2.50</td>
<td>MATH-152A or placement evaluation</td>
<td>This course includes the study of quadratic functions and equations, exponential and logarithmic functions, conic sections, sequences, series, sigma notation, and the binomial expansion. (GR)</td>
</tr>
<tr>
<td>MATH-153</td>
<td>Intermediate Algebra</td>
<td>54.00</td>
<td>3.00</td>
<td>MATH-151; MATH-151A and MATH-151B; or placement evaluation</td>
<td>This course includes the study of relations and functions and their graphs, quadratic equations, parabolas, exponential and logarithmic functions, and sigma notation. (GR)</td>
</tr>
<tr>
<td>MATH-155</td>
<td>Math for the Associate Degree</td>
<td>54.00</td>
<td>3.00</td>
<td>MATH-151 or placement evaluation</td>
<td>This course meets the minimum general education mathematics requirement. The course uses the concepts of beginning algebra (Algebra I), problem solving skills, and analytical thinking to investigate areas such as consumer concerns, recreational math, probability, math in sports, statistics, geometry, trigonometry, and math in the workplace. (GR)</td>
</tr>
<tr>
<td>MATH-156</td>
<td>Math for Liberal Arts</td>
<td>90.00</td>
<td>3.00</td>
<td>MATH-152, MATH-153, or placement evaluation</td>
<td>This course is designed for liberal arts and education students and uses the concepts learned in Intermediate Algebra. This is a survey course of college mathematics with emphasis placed on the nature of mathematics, problem solving, and thinking patterns. Topics covered will be selected from the areas of sets and logic, methods of proof, elements of probability and statistics, geometry, systems of numeration, math of finance, basic trigonometry and calculus, math history, and linear programming. (GR)</td>
</tr>
<tr>
<td>MATH-158</td>
<td>Pre-Statistics</td>
<td>90.00</td>
<td>5.00</td>
<td>MATH-152, MATH-153, or placement evaluation</td>
<td>This course will cover select topics from pre-algebra, algebra I, geometry, and statistics. Specifically the course will introduce students to collection of data, summary of data, and basic techniques for interpreting data. This course is intended to prepare students for MATH-159. (GR)</td>
</tr>
<tr>
<td>MATH-159</td>
<td>Introduction to Statistics</td>
<td>90.00</td>
<td>5.00</td>
<td>MATH-152, MATH-153, MATH-158, or placement evaluation</td>
<td>This course covers the use of probability techniques, hypothesis testing, and predictive techniques to facilitate decision-making. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-square, and t-tests; and application of technology for statistical analysis including the interpretation of the relevance of the statistical findings. Applications using data from disciplines including business, social sciences, psychology, life science, health science, and education. (GR) C-ID MATH 110</td>
</tr>
<tr>
<td>MATH-167</td>
<td>Calculus for Business and Social Science</td>
<td>90.00</td>
<td>5.00</td>
<td>MATH-186 or placement evaluation</td>
<td>This course includes the concepts of relations; algebraic, exponential, and logarithmic functions; differential and integral calculus; and functions of several variables and partial derivatives with applications to business, finance, and the social sciences. (GR) C-ID MATH 140</td>
</tr>
</tbody>
</table>

**Did you know??**

Nearly half of students earning a bachelor’s degree from a University of California campus in science, technology, engineering, and mathematics transferred from a California community college.

*Source: California Community Colleges Chancellor’s Office*
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Credit Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH-181</td>
<td>Trigonometry</td>
<td>54.00</td>
<td>3.00</td>
<td>MATH-152 or placement evaluation</td>
<td>CSU</td>
</tr>
<tr>
<td>MATH-186</td>
<td>Pre-Calculus I</td>
<td>72.00</td>
<td>4.00</td>
<td>MATH-152 or placement evaluation</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td>MATH-186X</td>
<td>Pre-Calculus I Supplement</td>
<td>18.00</td>
<td>1.00</td>
<td>MATH-186</td>
<td>(CR)</td>
</tr>
<tr>
<td>MATH-187</td>
<td>Pre-Calculus II</td>
<td>72.00</td>
<td>4.00</td>
<td>MATH-181, MATH-186, or placement evaluation</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td>MATH-188</td>
<td>Pre-Calculus</td>
<td>90.00</td>
<td>5.00</td>
<td>MATH-181</td>
<td>CSU &amp; UC</td>
</tr>
<tr>
<td>MATH-190</td>
<td>Basic Mathematics</td>
<td>54.00</td>
<td>3.00</td>
<td></td>
<td>Not applicable to associate degree. (GR)</td>
</tr>
<tr>
<td>MATH-190A</td>
<td>Basic Mathematics (Self-Paced)</td>
<td>27.00</td>
<td>1.50</td>
<td>MATH-190A</td>
<td>Not applicable to associate degree. (GR)</td>
</tr>
<tr>
<td>MATH-900A</td>
<td>Applications of Math I</td>
<td>27.00</td>
<td>0.00</td>
<td></td>
<td>Not applicable to associate degree. Repeatable = Unlimited times (CR)</td>
</tr>
</tbody>
</table>

### NONCREDIT MATH COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Credit Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH-900A</td>
<td>Applications of Math I</td>
<td>27.00</td>
<td>0.00</td>
<td></td>
<td>Not applicable to associate degree. Repeatable = Unlimited times (CR)</td>
</tr>
<tr>
<td>MATH-900A</td>
<td>Basic Mathematics (Self-Paced)</td>
<td>27.00</td>
<td>1.50</td>
<td></td>
<td>Not applicable to associate degree. Repeatable = Unlimited times (CR)</td>
</tr>
</tbody>
</table>
MATH-900B Applications of Math II
27.00 hrs lecture
Units: 0.00
This noncredit course blends mathematical topics with practical applications. Emphasis is placed on the use of algebraic properties and graphing in solving word problems drawn from various real world scenarios. Not applicable to associate degree. Repeatable = Unlimited times (CR)

MATH-951 Algebra I
72.00 hrs lecture
Units: 0.00
This noncredit course includes the study of operations on algebraic expressions; linear equations and inequalities; graphs of linear equations; systems of equations (two variables); exponents; polynomials; factoring; and rational expressions. Not applicable to associate degree. Repeatable = Unlimited times (CR)

MATH-952 Algebra II
54.00 hrs lecture
Units: 0.00
This noncredit course includes the study of systems of equations; rational and quadratic inequalities; relations; functions and their graphs; and exponents and roots. Not applicable to associate degree. Repeatable = Unlimited times (CR)

MATH-965 Supervised Tutoring
72.00 hrs lab
Units: 0.00
Prerequisite: Referral by instructor
Corequisite: Enrollment in the course for which the student needs academic support in order to succeed
In this noncredit course students from referred courses receive supplemental academic support to reinforce course content and bolster academic skills. Under the supervision of qualified faculty in one of the college’s Learning Centers, peer tutors provide individual and/or group instruction to improve learning in areas of assessed need. Not applicable to associate degree. Repeatable = Unlimited times (NG)

MATH-992 Arithmetic and Pre-Algebra
72.00 hrs lecture
Units: 0.00
This noncredit course provides a foundation in arithmetic and pre-algebra. Topics include basic operations on whole numbers, fractions, mixed numbers, decimal numbers, and signed numbers, along with presenting word problem applications for each. Additional topics include order of operations, ratio and proportion, solving percent problems, and an introduction to variables and beginning concepts of algebra. Not applicable to associate degree. Repeatable = Unlimited times (CR)

Multimedia (MM)
Division: Kinesiology, Athletics, and Arts
Academic Dean: Christopher Warden
Division Administrative Assistant: Maria Rocha
Location: Fremont campus, Room 9303
Phone number: 510-659-6044

This department offers Special Projects courses (MM-201, MM-202, and MM-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

MM-100 Introduction to Concepts in Digital Media
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
Digital technologies continue to have a profound effect on all aspects of human society, and new forms of digital media are increasingly perceived as essential to contemporary daily life. These technologies have altered how we work, communicate, learn, and interact with each other. We can observe unprecedented transformations and innovations in new media technologies almost every day. This course is a non-technical introduction to the history, theory, and practice of digital technologies and their applications within science, society, culture, and art. Students will gain an understanding of new media through an in-depth analysis of the history and trends within emerging technologies. They will examine the work of scientists, designers, political organizers, and multimedia artists who have developed technologies and explored new means of integrating these technologies into everyday life. Students will gain insight into the ways interdisciplinary collaboration and information sharing impact the development of the digital frontier. (GC)

MM-101 Visual and Interaction Design
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Cross-referenced Course: GA-101
Accepted For Credit: CSU
This course introduces students to the fundamental principles and practices of Design Thinking, User Interface Design (UI), and Interaction Design (IxD). The course examines how text, navigational systems, visual representation, time, and human behavior play a part in these disciplines and examines how to manage a systematic and iterative design process. Students are introduced to industry tools and methodologies for researching, conceptualizing, designing, and testing interactive and user-centric interfaces to properly communicate their design to key clients and to meet specific and meaningful experience goals for users. Specialized projects encourage students to develop organizing principles, workflows, prototypes, and interfaces that demonstrate principles of Visual and Interaction Design and an understanding of different target platforms. (GR)
**MM-102A Introduction to Multimedia**
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU & UC  
In this course students will explore technical, artistic, and creative ways to produce animations, images, and basic interactive multimedia projects for web, print, and mobile devices. The course employs industry standard software and introduces new technologies such as augmented reality. Topics include typography, design principles, multimedia terminology, copyright issues, image, sound manipulation, and creating AR applications for mobile devices. (GC)

C-ID ARTS 250

**MM-103 History of Games and Play**
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
This course examines the historical and cultural role of analog and electronic games; the current industrial landscape; and possible future developments in technology, design, and gaming culture. The course investigates the socio-cultural impacts of interactive entertainment and explores how games help construct beliefs and morals; develop ideologies and shape identity; and, in turn, how culture and society are expressed in gameplay. Students explore and analyze historical and contemporary games and their cultural context while reading current research and theory from a variety of sources in the sciences, social sciences, humanities, and the industry. (GR)

**MM-105 Introduction to Web Design**
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: CS-101  
Accepted For Credit: CSU  
This course is a comprehensive introduction to designing and building websites. Students are provided with practical, skill-based instructions in HTML and CSS, usability, accessibility, web file management, responsive design techniques, and front-end frameworks. In addition to technical skills, the course emphasizes User Interface (UI) and User Experience (UX) design principles and visual communication perspectives to create engaging user-centered experiences. (GC)

**MM-106 Advanced Interaction Design for Web and Mobile**
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: MM-105  
Accepted For Credit: CSU  
This course introduces students to advanced techniques in website design and web-based mobile applications. In addition to industry standard software like Dreamweaver and Photoshop, this course focuses on CSS for layout, user experience design, and navigation. Topics include rapid prototyping; forms; Ajax and jQuery; dynamic image galleries; building accessible and flexible layouts for screen, tablets, and mobile devices; and professional practices in website design. (GC)

**MM-107 WordPress**
4.50 hrs lecture, 13.50 hrs lab  
Units: 0.50  
WordPress is a free and open source content management system (CMS) and one of the most popular online tools to build websites. In this hands-on course students learn how to install, setup, customize, and publish websites using the WordPress platform. (GC)

**MM-109 2D Animation**
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: ART-106A, CS-101  
Accepted For Credit: CSU & UC  
This course teaches students the techniques and principles of two-dimensional digital animation production. Students will be introduced to the basic principles of animation and gain fluency in the production processes and the software applications widely used throughout the industry. The curriculum includes character and story development; storyboarding and motion control culminating in animated shorts; web animations; and 2D video game character designs. (GC)

**MM-110 Digital Video for the Web and DVD**
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: ART-140  
Accepted For Credit: CSU & UC  
This course is a hands-on introduction to digital video to develop media production skills. The course combines equipment demonstrations, technical workshops, lectures on film theory, readings, discussion, and critiques to give students a fully rounded introduction to all aspects of digital video pre-production, production, and post-production. Topics include producing narrative and documentary style videos, camera proxemics, composition, editing, video file formats and compression, special effects, and producing videos for a variety of outputs. (GR)

**MM-112 Motion Graphics**
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Cross-referenced Course: GA-112  
Accepted For Credit: CSU  
This course is an introduction to concepts, practices, and techniques in Motion Graphic Design and Visual Effects software. Topics include digital compositing, animation, interaction design, and visual effects to produce captivating communication design for film, TV, web, and multimedia industries. (GR)

**MM-113 Mobile Application Development**
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: MM-105  
Accepted For Credit: CSU  
This course is a practical and project-oriented introduction to creating web and native applications for mobile platforms, specifically for Apple iOS and Android devices. Topics covered include user interface design, software design patterns, application architectures, Dreamweaver’s mobile templates, jQuery Mobile, and PhoneGap. (GC)

**MM-114 Textures for 3D**
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: MM-102A and MM-121A  
Students will learn different techniques to enhance 3D objects and environments using computer-based 3D sculpting and painting tools. Topics include painting textures, manipulating digital images, texture mapping, lighting techniques, camera controls, applying principles of art and design to 3D imagery, and rendering images for multimedia and print. (GC)
MM-118  Introduction to Video Game Design  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU  
This course focuses on the process of planning, developing, and creating content for video games. Students will gain an understanding of the video game industry, and learn how to design characters, levels, and design documents. (GC)

MM-119  Video Game Development  
36.00 hrs lecture, 108.00 hrs lab  
Units: 4.00  
Prerequisite: MM-118  
Advisory: MM-114 and MM-121A  
Accepted For Credit: CSU  
This course focuses on producing video games using 3D software and game engines. Students work individually and in a team environment and follow production practices employed in the video game industry. Topics include 2D and 3D game development processes, graphics, game scripting, motion control, narratives in games, interface design for game development, Mobile Gaming, Virtual Reality, music, and sound. (GR)

MM-120  Video Game Design and Development Capstone  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Prerequisite: MM-118 and MM-119  
Accepted For Credit: CSU  
This game design and development capstone course provides students with an opportunity to advance their skills. Students create an original game from concept development through implementation, testing, and launch. In addition to feedback from peers, students have the chance to gain feedback from game industry professionals. (GC)

MM-121A  3D Modeling  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: CS-101  
Accepted For Credit: CSU  
Students will learn different techniques to model virtual objects and environments using 3D modeling software. The topics covered are designing characters, modeling, texture mapping, lighting techniques, camera shots, 3D scene layout, and rendering images for different multimedia applications. Introduction to basic 3D animation techniques will be covered. (GC)

MM-121B  3D Animation  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Prerequisite: MM-121A  
Advisory: MM-102A  
Accepted For Credit: CSU  
This course encompasses all major aspects of creating 3D animations using the latest animation software. Students will create original artwork and present their work in class. The topics covered include storyboards, principles of animation, function curves, bones, introduction to inverse kinematics, camera motion, lighting, rendering, scene direction, and exporting animations. (GC)

MM-121C  Advanced 3D Modeling and Animation  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Prerequisite: MM-121B  
Advisory: MM-102A  
Accepted For Credit: CSU  
Students will learn advanced techniques in modeling and animation using 3D animation software. The topics include advanced modeling tools; texture mapping; topology and facial expressions; lighting and reflection effects; function curves; particle systems; camera effects; scene direction; sound; basic video editing; rigging and skinning; and animating using inverse kinematics. (GC)

MM-122  Digital Sculpting  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
This course introduces students to digital sculpting and its integration with traditional modeling workflows for production. Students learn how to create ultra-realistic, lifelike 3D characters with a high level of detail utilizing industry-standard software applications. Demonstrations, exercises, and in-depth assignments help students develop sculpting, sculpting physics, composition, anatomy, and texture painting skills. (GR)

MM-123  3D Prototyping and 3D Printing  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
3D printing is reshaping the fields of art, science, and technology by revolutionizing how things are made. This course explores 3D Printer rapid-prototyping technology to design and print custom interlocking 3D parts, culminating in building functional electro-mechanical devices such as flying drone copters and robots. Students will gain the theoretical and practical knowledge necessary to wield this transformative technology in the real world. (GC)

MM-124  Commercial Drone Imaging  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
An introduction to using drones commercially and creatively for digital imaging. This course is designed to familiarize students with drone equipment; drone photography and videography; safety regulations; and preparations for obtaining a FAA-107 license required to operate a drone commercially. The course provides a starting point to using drones in multiple careers. (GR)

MM-159  Introduction to Social Media  
36.00 hrs lecture, 18.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
This course is an introduction to social media and social media platforms such as Twitter, Facebook, twitch, Snapchat, LinkedIn, and others for career, community building, communication, and marketing. Social media technologies enable individuals to create, collaborate, promote, and share messages with audiences and communities. Students explore the possibilities and limitations of social media and have hands-on experience with several forms of social media/platform technology. Class discussions, presentations by students, readings, case studies, and invited speakers highlight new, effective strategies and applications of these platforms. (GR)
MM-160 Multimedia Portfolio Development  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Prerequisite: MM-102A  
Accepted For Credit: CSU  
This course will focus on the development of student portfolios for the purpose of presentation on the web. Students will learn about the “cultures” of the multimedia industry, review job roles and responsibilities, go on field trips, and get advice from professionals in the industry. Topics covered include creating a digital portfolio for the web, evaluation of student work, resources in multimedia, preparing a resume, designing and producing business cards, preparing contracts, job hunting techniques, and preparing for a job interview. (GR)

NONCREDIT MM COURSES

MM-900 Game Design Essentials  
6.00 hrs lecture, 6.00 hrs lab  
Units: 0.00  
Advisory: Basic computer literacy  
This noncredit course is for students interested in game design or game development. The course provides students with an overview of the tools, skills, practices, and employment opportunities in an industry that encompasses dozens of job disciplines and employs thousands of people worldwide. Not applicable to associate degree. Repeatable = Unlimited times (CR)

MM-901 Web Design Essentials  
6.00 hrs lecture, 6.00 hrs lab  
Units: 0.00  
This hands-on noncredit course introduces students to basic web design including creating, editing, publishing, and maintaining websites for business and personal use. The course does not require any prior knowledge of web design. Not applicable to associate degree. Repeatable = Unlimited times (CR)

MM-902 Video Production Essentials  
6.00 hrs lecture, 6.00 hrs lab  
Units: 0.00  
Advisory: Basic computer literacy  
This noncredit course introduces students to the basics of video production, camera functions, video editing, and exporting video to the web. Students work individually and in groups to develop, shoot, and edit small video projects. Not applicable to associate degree. Repeatable = Unlimited times (CR)

MM-903 Social Media for Business Essentials  
6.00 hrs lecture, 6.00 hrs lab  
Units: 0.00  
Advisory: Basic computer literacy  
This noncredit course provides students with an overview of social media and social media platforms used for digital marketing campaigns including Facebook, Instagram, Twitter, LinkedIn, and Pinterest. Students explore online advertising techniques to improve digital promotions, increase website traffic, and acquire and retain customers. Not applicable to associate degree. Repeatable = Unlimited times (CR)

Music (MUS)

Division: Kinesiology, Athletics, and Arts  
Academic Dean: Christopher Warden  
Division Administrative Assistant: Maria Rocha  
Location: Fremont campus, Room 9303  
Phone number: 510-659-6044  
This department offers a Special Projects course (MUS-201). Please see page 156 of this catalog for more information regarding Special Projects courses.

MUS-100 Survey of the Arts  
$4.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: ART-100, IS-100, TD-100  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
Art, music, and theatre are explored in this course through discussion, historical review, and contemporary issues. The purpose of this course is to increase student's understanding and enjoyment of the arts. The course is taught by three instructors, one from each discipline. (GR)  
C-ID MUS 100

MUS-101 Music Appreciation: Western Classical Music  
$4.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course concentrates on the development of an attentive style of listening, the introduction and systematic study of the building blocks of music, and enhancing awareness of the main musical styles of selected western cultures. (GR)  
C-ID MUS 100
MUS-102 Music Appreciation
$4.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course is an introductory course in music for students without previous formal training in music, listening, or performance. The course is designed to provide understanding and enjoyment through informed listening, analysis, and discernment of musical element, forms, and repertoire. The material selected is from all styles, periods, and cultures. (GR)

MUS-103 Fundamentals of Music
$4.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course provides an introduction to the notation and fundamental theoretical elements of Western music, covering pitch and rhythm concepts and structures; basic formal elements; and fundamental musicianship. The ability to read music is not required for this course. (GC) C-ID MUS 110

MUS-104 Music of World Cultures
$4.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
A survey of traditional and contemporary music from around the world including, but not limited to, Africa, India, Indonesia, South/Central America, Caribbean, Europe, China, Japan, and the United States. This course will deal with the traditional instruments and ensembles, as well as vocal techniques and performance practices particular to each region. (GR)

MUS-108 Songwriting
36.00 hrs lecture
Units: 2.00
Advisory: MUS-103
Accepted For Credit: CSU
This course exposes students to the analytical processes, compositional techniques, and marketing fundamentals involved in the business of commercial songwriting. Song demos will be created in the computer program GarageBand. Final projects will be played and recorded by live musicians in the Ohlone recording studio. Songwriting experience is not necessary, but the ability to play guitar or piano is helpful. (GR)

MUS-110B Harmony
$4.00 hrs lecture
Units: 3.00
Prerequisite: MUS-110A
Corequisite: MUS-111B
Accepted For Credit: CSU & UC
This course includes the study of diatonic harmony in major keys, major and minor triads, inversions, modulation, non-harmonic tones, and secondary dominants. The course includes writing for the piano using the phrase, period, and two and three part song form. This course is the second in the four-semester theory sequence. Requires attendance at selected events offered by Ohlone College at the Gary Soren Smith Center for the Fine and Performing Arts. (GR) C-ID MUS 130

MUS-110C Advanced Harmony
$4.00 hrs lecture
Units: 3.00
Prerequisite: MUS-110B
Corequisite: MUS-111C
Accepted For Credit: CSU & UC
This course is a study of chromatic harmony with particular emphasis on the chronological development of harmonic and contrapuntal techniques from the 16th through the 19th centuries. This course is the third in the four-semester theory sequence. Requires attendance at selected events offered by Ohlone College at the Gary Soren Smith Center for the Fine and Performing Arts. (GR) C-ID MUS 140

MUS-111A Musicianship I
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Corequisite: MUS-110A
Accepted For Credit: CSU & UC
This course develops basic facility in sight singing, ear training, and the ability to take musical dictation. (GR) C-ID MUS 125

MUS-111B Musicianship II
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Prerequisite: MUS-111A
Accepted For Credit: CSU & UC
This course continues the development and application of skills in sight-singing, ear training, and the ability to take musical dictation. This curriculum parallels the analytical concepts presented in MUS-110B, Harmony. (GR) C-ID MUS 135
MUS-111C  Musicianship III
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Prerequisite: MUS-111B
Corequisite: MUS-110C
Accepted For Credit: CSU & UC
This course continues the development and application of skills in sight singing, ear training, and the ability to take musical dictation. This curriculum parallels the analytical concepts presented in MUS-110C, Advanced Harmony. (GR)
C-ID MUS 145

MUS-111D  Musicianship IV
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Prerequisite: MUS-111C
Corequisite: MUS-110D
Accepted For Credit: CSU & UC
This course continues the development and application of skills in sight-singing, ear training, and the ability to take musical dictation. This curriculum parallels the analytical concepts presented in MUS-110C, Advanced Harmony. (GR)
C-ID MUS 155

MUS-112A  Introduction to Music Technology
$4.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course provides an introduction to creating music with keyboards, audio samples, and beats using computer music software (Pro Tools). The course is designed to train students in the understanding and application of music technology with emphasis on mixing, mastering, and MIDI sequencing. The course covers the fundamental vocabulary, methods, concepts, and devices used in contemporary music production, including sound fundamentals, consumer audio equipment, personal computers, and software. (GR)

MUS-112B  Intermediate Music Technology
$4.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Advisory: MUS-112A
Accepted For Credit: CSU
This course deepens the focus on creating music with keyboards, audio samples, and beats using computer music software by taking a more detailed look at the Pro Tools system. The course covers intermediate recording, editing, and mixing techniques. This is the second course in the official Avid Pro Tools curriculum and the course provides a foundation for the later Pro Tools Music Production and Post Production courses. (GR)

MUS-113  Studio Recording
$4.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Cross-referenced Course: BRDC-132
Advisory: MUS-112A
Accepted For Credit: CSU
This course is an introduction to the recording studio that follows the path of audio signals through the microphone, mixer, signal processors, digital audio workstation (DAW), and monitoring stations. Course topics include various types of microphones, the functions of virtual mixing boards, the characteristics of plug-in signal processors, and recording techniques. This course culminates in the production of a finished, master recording audio file. (GC)

MUS-121  The History of Jazz
$4.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This course involves the study of jazz, its historical background, and its development in the world. The course is open to all students. (GR)

MUS-122  History of Rock and Roll: Music and Culture of the 1950’s
$4.00 hrs lecture
Units: 3.00
Cross-referenced Course: HIST-141, IS-142
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course presents a historical overview of the emergence of rock and roll music as a cultural phenomenon in the U.S. The major figures of the 1950’s—Bill Haley, Fats Domino, Elvis Presley, Chuck Berry, and Little Richard—will be studied alongside the major historical events and trends that shaped this decade. The course is designed to gradually develop a student’s appreciation for this art form while simultaneously exposing the symbiotic interrelationship between rock and roll and American culture. The course will chart how rock and roll simultaneously reflects and affects society by grounding the key people, events, and songs within their historical context. (GC)

MUS-123  History of Rock and Roll: Music and Culture of the 1960’s
$4.00 hrs lecture
Units: 3.00
Cross-referenced Course: HIST-142, IS-143
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course charts the evolution of rock and roll music from the late 1950’s through the 1960’s, focusing on the history of the period as well as a detailed analysis of the stylistic development of this important musical genre. The course is designed to gradually develop students’ appreciation for this art form while simultaneously exposing the symbiotic interrelationship between rock and American society. (GC)
MUS-160A Beginning Class Piano
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Accepted For Credit: CSU & UC
This course consists of intermediate level class piano lessons for beginners and students who wish to develop elementary skill at the keyboard. The course is required for music majors and recommended for teaching credential applicants. It is also recommended for all students interested in learning the piano for fun. (GR)

MUS-160B Class Piano
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Advisory: MUS-160A
Accepted For Credit: CSU & UC
This course consists of class piano lessons for beginners and students who wish to develop elementary skill at the keyboard. The course is required for music majors and recommended for teaching credential applicants. It is also recommended for all students interested in learning the piano for fun. (GR)

MUS-160C Class Piano
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Advisory: MUS-160B
Accepted For Credit: CSU & UC
This course consists of intermediate level class piano lessons for students who wish to develop skill at the keyboard. The course is required for music majors and recommended for teaching credential applicants. It is also recommended for all students interested in learning the piano for fun. (GR)

MUS-160D Class Piano
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Advisory: MUS-160C
Accepted For Credit: CSU & UC
This course consists of intermediate level class piano lessons for students who wish to develop skill at the keyboard. The course is required for music majors and recommended for teaching credential applicants. It is also recommended for all students interested in learning the piano for fun. (GR)

MUS-160E Piano Repertoire
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Accepted For Credit: CSU & UC
This course consists of intermediate to advanced level class piano lessons for students who wish to develop skill at the keyboard. The course is required for music majors and recommended for teaching credential applicants. It is also recommended for all students interested in learning the piano for fun. (GR)

MUS-160F Piano Repertoire
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Advisory: MUS-160E
Accepted For Credit: CSU & UC
This course consists of intermediate to advanced level class piano lessons for students who wish to develop skill at the keyboard. It is required for music majors and recommended for teaching credential applicants. It is also recommended for all students interested in learning the piano for fun. Requires attendance at selected events offered by Ohlone College at the Gary Soren Smith Center for the Fine and Performing Arts. (GR)

MUS-161A Class Guitar
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Accepted For Credit: CSU & UC
This course is the second level of group instruction giving students the opportunity to experience playing the guitar in solo, accompaniment, and ensemble settings. The repertoire represents all stylistic periods. Students must provide their own guitar. (GR)

MUS-161B Class Guitar II
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Prerequisite: MUS-161A
Accepted For Credit: CSU & UC
This course is the third level of group instruction giving students experience playing solo, accompaniment, and ensemble guitar music. The repertoire represents all stylistic periods. Students must provide their own guitar. (GR)

MUS-161C Class Guitar III
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Prerequisite: MUS-161B
Accepted For Credit: CSU & UC
This course is the fourth level of group instruction giving students the opportunity to learn song accompaniment, solo and ensemble experience playing the guitar. The literature represents all stylistic periods. Students must provide their own guitar. (GR)

MUS-161D Class Guitar IV
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Prerequisite: MUS-161C
Accepted For Credit: CSU & UC
This course is the fifth level of group guitar instruction. The repertoire used covers many stylistic periods. Students must provide their own guitar. (GC)

MUS-161E Class Guitar V
18.00 hrs lecture, 36.00 hrs lab
Units: 1.00
Prerequisite: MUS-161D
Accepted For Credit: CSU & UC
This course is the fifth level of group guitar instruction. The literature represents all stylistic periods. Students must provide their own guitar. (GR)
MUS-161F  Class Guitar VI  
18.00 hrs lecture, 36.00 hrs lab  
Units: 1.00  
Prerequisite: MUS-161E  
Accepted For Credit: CSU & UC  
This course is the sixth level of group guitar instruction. The literature represents all stylistic periods. Students must provide their own guitar. (GC)

MUS-162A  Class Voice-Beginning  
18.00 hrs lecture, 36.00 hrs lab  
Units: 1.00  
Accepted For Credit: CSU & UC  
This course offers group instruction in vocal production with emphasis on solo literature. Many common vocal problems are identified and analyzed through classroom participation and discussion utilizing vocal literature and art songs. Vocal literature is studied with regard to musical content and textual origin and meaning. (GR)

MUS-162B  Class Voice-Beginning  
18.00 hrs lecture, 36.00 hrs lab  
Units: 1.00  
Prerequisite: MUS-162A  
Accepted For Credit: CSU & UC  
This course will offer group instruction in vocal production with emphasis on solo literature. Many common vocal problems will be identified and analyzed through classroom participation and discussion utilizing vocal literature and art songs. Requires attendance at selected events offered by Ohlone College at the Gary Soren Smith Center for the Fine and Performing Arts. (GR)

MUS-162C  Class Voice-Intermediate  
18.00 hrs lecture, 36.00 hrs lab  
Units: 1.00  
Prerequisite: MUS-162B  
Accepted For Credit: CSU & UC  
Students practice correct tone production, diction, stage presence, and style interpretation. Vocal problems are identified and corrected while students study literature consisting of standard vocal repertoire. (GR)

MUS-162D  Class Voice-Intermediate  
18.00 hrs lecture, 36.00 hrs lab  
Units: 1.00  
Prerequisite: MUS-162C  
Accepted For Credit: CSU & UC  
Students practice correct tone production, diction, stage presence, and style interpretation. Vocal problems are identified and corrected while students study literature consisting of standard vocal repertoire. (GR)

MUS-162E  Vocal Repertoire  
18.00 hrs lecture, 36.00 hrs lab  
Units: 1.00  
Prerequisite: MUS-162D  
Accepted For Credit: CSU & UC  
Students practice correct tone production, diction, and stage presence. Style interpretation will be stressed in each lesson. Vocal problems are identified and corrected while students study literature consisting of standard vocal repertoire. (GR)

MUS-162F  Vocal Repertoire  
18.00 hrs lecture, 36.00 hrs lab  
Units: 1.00  
Prerequisite: MUS-162E  
Accepted For Credit: CSU & UC  
Students practice correct tone production, diction, and stage presence. Style interpretation will be stressed in each lesson. Vocal problems are identified and corrected while students study literature consisting of standard vocal repertoire. (GR)

MUS-166A  Applied Music  
18.00 hrs lecture, 18.00 hrs lab  
Units: 1.00  
Prerequisite: Audition  
Corequisite: Participation in an appropriate performance ensemble and music major preparation course (such as MUS-103, Fundamentals of Music)  
Accepted For Credit: CSU & UC  
This course involves individual instruction in techniques and repertoire in voice, piano, guitar, or other traditional orchestral instruments for students who are currently enrolled in private instruction. Achievement is evaluated through periodic classroom performances and a juried final performance. Repeatable = 3 times (GR) C-ID MUS 160

MUS-169A  Jazz Guitar  
18.00 hrs lecture, 36.00 hrs lab  
Units: 1.00  
Advisory: Some guitar playing ability required  
Accepted For Credit: CSU & UC  
The course examines various aspects of jazz guitar with special emphasis on harmony and melodic improvisation in a group setting. Students need to supply their own electric or acoustic guitar. (GR)

MUS-169B  Blues/Rock Guitar  
18.00 hrs lecture, 36.00 hrs lab  
Units: 1.00  
Accepted For Credit: CSU & UC  
This course provides group instruction in blues/rock improvisation and accompaniment, including lecture, demonstration, and in-class playing. Students need to supply their own electric guitar and small amp, or an acoustic guitar with light-gauge strings. (GR)

MUS-169D  Applied Theory for Bass and Guitar  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course applies fundamental music theory—scales, intervals, chords, keys, rhythmic figures, and ear training—to bass and guitar in a lecture/workshop setting. (GR)

MUS-351  Performance Ensembles  
54.00 hrs lecture  
Units: 1.00  
Accepted For Credit: CSU & UC  
This course is the study and performance of vocal and/or instrumental ensemble literature, both jazz and classical. Performers participate in small ensembles of varied instrumentation throughout each semester. Attendance at scheduled public performances is required. This course is required of all instrumental music majors each semester of attendance. Repeatable = 3 times (GR)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS-352</td>
<td>Jazz/Rock Ensemble</td>
<td>5.00</td>
<td>1.00</td>
<td>Audition</td>
<td>This course is for the study, rehearsal, and public performance of literature appropriate for jazz, rock, R&amp;B, and stage band ensembles, focusing on the skills needed to perform in a large group setting including horn sections, vocal sections, and percussion sections. Different literature will be studied each semester. Open to all instruments and vocalists. Repeatable = 3 times (GR) C-ID MUS 180</td>
</tr>
<tr>
<td>MUS-352B</td>
<td>Advanced Jazz/Rock Combos</td>
<td>5.00</td>
<td>1.00</td>
<td>MUS-352</td>
<td>This course is an advanced live-performance workshop for all instrumentalists and singers. The course is a continuation of the concepts covered in MUS-352 with greater emphasis on soloing, arranging, music theory, and contemporary performance practices. Repeatable = 3 times (GR)</td>
</tr>
<tr>
<td>MUS-355</td>
<td>College Chorus</td>
<td>5.00</td>
<td>1.00</td>
<td>Audition</td>
<td>Students will perform a variety of choral music ranging from jazz and popular to light classical and contemporary choral literature. Emphasis is placed on developing good vocal technique and individual musicianship in order to create artistic ensemble singing. Repeatable = 3 times (GC) C-ID MUS 180</td>
</tr>
<tr>
<td>MUS-356</td>
<td>Chamber Singers</td>
<td>5.00</td>
<td>1.00</td>
<td>Audition</td>
<td>This course is an audition-only choir ensemble of trained community/campus singers who specialize in choral music from all eras of Western European music history. The choir is limited in size, but enrollment is open to all qualified singers. Attendance at all rehearsals and concerts is required. Repeatable = 3 times (GC) C-ID MUS 180</td>
</tr>
<tr>
<td>MUS-359</td>
<td>Jazz, Rock, Pop, Blues Piano</td>
<td>3.00</td>
<td>1.00</td>
<td>Audition</td>
<td>This course is a basic techniques and forms study of the applied and improvisation techniques of Jazz, Rock, Pop, Fusion, and Blues piano. Some prior piano study and reading ability are advised, but beginners are welcome. Repeatable = 3 times (GR)</td>
</tr>
<tr>
<td>MUS-369</td>
<td>Symphonic Band</td>
<td>5.00</td>
<td>0.50</td>
<td>Audition</td>
<td>This course includes the study and performance of large scale symphonic band literature. Emphasis will be placed on major composer repertoire, scored for an ensemble with multiple part duplication. Attendance at scheduled rehearsals and performances is required. Repeatable = 3 times (GR)</td>
</tr>
<tr>
<td>MUS-370</td>
<td>Mixed Wind Ensemble</td>
<td>5.00</td>
<td>0.50</td>
<td>Audition</td>
<td>This course includes the study and performance of “one player per part” wind literature. Emphasis will be placed on solo preparation and execution. Attendance at scheduled rehearsals and performances is required. Repeatable = 3 times (GR)</td>
</tr>
<tr>
<td>MUS-371</td>
<td>Community Orchestra</td>
<td>5.00</td>
<td>0.50</td>
<td>Audition</td>
<td>This course features the study and performance of both chamber and full symphonic orchestra repertoire. The literature represents all stylistic periods. Repeatable = 3 times (GR)</td>
</tr>
<tr>
<td>MUS-374</td>
<td>Musical Workshop - College Cabaret</td>
<td>3.00</td>
<td>2.00</td>
<td>MUS-162A and MUS-162B; or audition</td>
<td>This workshop is designed to familiarize and teach students the principles and complexities involved in the preparation and production of a dramatic musical performance. Specific instruction will be given in movement and music for members of the chorus. Repeatable = 3 times (GR)</td>
</tr>
<tr>
<td>MUS-380</td>
<td>Musical Theatre Workshop - Chorus/Ensemble</td>
<td>5.00</td>
<td>1.00</td>
<td>MUS-162A and MUS-162B; or audition</td>
<td>This workshop is designed to familiarize and teach students the principles and complexities involved in the preparation and production of a dramatic musical performance. Specific instruction will be given in movement and music for members of the chorus. Repeatable = 3 times (GR)</td>
</tr>
<tr>
<td>MUS-382</td>
<td>Musical Theatre Workshop III (Instrumental)</td>
<td>5.00</td>
<td>1.00</td>
<td>Audition</td>
<td>This course is designed to familiarize students with the principles and complexities involved in the preparation and production of a dramatic musical performance from the perspective of the “pit musician.” Repeatable = 3 times (GR)</td>
</tr>
<tr>
<td>MUS-394</td>
<td>Show Choir</td>
<td>5.00</td>
<td>1.00</td>
<td>Audition</td>
<td>This course is an audition-only vocal ensemble of trained singers who specialize in choral music from the “show choir/vocal jazz choir/a cappella” repertoire. Repeatable = 3 times (GC)</td>
</tr>
</tbody>
</table>
Nursing (NUR)

Division: Health Sciences
Academic Dean: Robert Gabriel
Division Administrative Assistant: Zelma Hunter
Location: Newark campus, Room NC1324
Phone number: 510-742-3100

NUR-301 Foundations of Nursing
54.00 hrs lecture, 135.00 hrs lab
Units: 5.50
Prerequisite: Admission to the Registered Nursing program
Accepted For Credit: CSU
Nursing 301 is the first course in the nursing sequence. Students are introduced to caring theory and practice of nursing based on nurse caring science. This course focuses on assessment of patients’ physical and psychological systems across the adult life span, including variations for the geriatric client. Health and wellness are explored within the context of the health care delivery system. Students begin holistic nursing socialization process into the role of the professional registered nurse, learning holistic communication skills, multiple ways of knowing, and the role of critical thinking in caring for culturally diverse patients in acute care settings. This course focuses on assessing, developing, implementing, and evaluating a plan of care that respects the uniqueness of patients and their care preferences related to sexual orientation, ethnicity, religion, developmental stage, and socioeconomic background. Detailed objectives are written for each class and correlate with required preparation. Simulated practice of fundamental nursing skills occurs in a multimedia setting with utilization of both high and low fidelity mannequins. Clinical application of caring theory and skills occurs in the hospital. (GR)

NUR-302 Nursing Care of the Medical-Surgical Patient I
54.00 hrs lecture, 135.00 hrs lab
Units: 5.50
Prerequisite: Admission to the Registered Nursing program
Accepted For Credit: CSU
Nursing 302 is the second course in the nursing sequence. The focus of this course is beginning concepts in nursing care of the medical-surgical patient experiencing chronic physical and psychological changes related to cardiovascular, respiratory, endocrine-protective, and ingestion-elimination systems. Issues surrounding chronicity and nursing care of high-risk populations will be explored. Students are introduced to pre-operative, intra-operative, and post-operative nursing roles. Pharmacology is expanded in this course and is addressed in each subsequent course. This course focuses on assessing, developing, implementing, and evaluating a plan of care that respects the individual's cultural beliefs related to their health and experience of chronic illness. Detailed objectives are written for each class and correlate with required preparation. Simulated practice of nursing skills occurs in a multimedia setting with utilization of high and low fidelity mannequins. Clinical application of nurse caring theory and skills occurs in the hospital. (GR)

NUR-303 Nursing Care of Women and Children
72.00 hrs lecture, 216.00 hrs lab
Units: 8.00
Prerequisite: NUR-301
Accepted For Credit: CSU
Nursing 303 is the third course in the nursing sequence. This course focuses on applying nursing caring science principles in providing nursing care to the childbearing, child rearing family. Nursing roles of being a provider and manager of care and a member of the nursing profession are explored in women's health care, labor and delivery, post-partum, newborn nursery, and pediatric settings. The course incorporates lectures, discussion, and extensive video and multimedia components. Course content includes pathophysiology, nursing implications of diagnostic tests, and related pharmacology. Students assess patients, identify nursing diagnoses, and implement and evaluate nursing interventions to promote healing responses in women and children experiencing health and family changes. The course focuses on assessing, developing, implementing, and evaluating a plan of care that respects the individual's cultural and ethnic childbearing beliefs regarding pregnancy, labor and delivery, and post-partum care of the mother and the newborn. Additionally, this course explores legal and ethical situations concerning parent-child rights; legal and cultural responses to child abuse and the child with congenital anomalies; and culturally appropriate education of families. Detailed objectives are written for each class and correlate with required preparation. Simulated practice of nursing skills in a multimedia setting with the use of intermediate and high-fidelity mannequins is included. Clinical application of nursing caring theory and skills occurs in hospital and community settings. (GR)

NUR-304 Nursing Care of the Medical-Surgical Patient II
45.00 hrs lecture, 135.00 hrs lab
Units: 5.00
Prerequisite: NUR-303
Accepted For Credit: CSU
Nursing 304 is the fourth course in the nursing sequence. The focus of this course is intermediate concepts in nursing care of the medical-surgical patient experiencing acute physical and psychological changes related to cardiovascular, respiratory, neurosensation, endocrine-protective, and ingestion-elimination systems. Complex situations concerning acute care nursing of high-risk and oncology patients will be explored, including ethical and legal concerns with palliative and end-of-life care. This course focuses on assessing, developing, implementing, and evaluating a plan of care that respects the individual’s cultural beliefs related to their health and experience of cancer and other medical surgical conditions. Detailed objectives are written for each class and correlate with required preparation. Simulated practice of nursing skills occurs in a multimedia setting with utilization of high and low fidelity mannequins. Clinical application of nurse caring theory and skills occurs in the hospital. (GR)
NUR-305 Nursing Care of the Medical-Surgical Patient III
45.00 hrs lecture, 135.00 hrs lab
Units: 5.00
Prerequisite: NUR-303
Accepted For Credit: CSU
Nursing 305 is the fifth course in the nursing sequence. This course focuses on providing advanced, often urgent or intensive nursing care to adult and geriatric patients with complex alterations in the cardiovascular, respiratory, endocrine-protective, elimination, and neuro/sensation systems. Students will use caring nursing process and advanced clinical reasoning to develop an individualized, culturally sensitive plan of care for the patient that interrelates pathophysiology, nursing assessments, diagnostic tests, pharmacology and medical treatments. Detailed objectives are written for each class and correlate with required preparation. Simulated practice of related skills occurs in a multimedia setting with high fidelity mannequins. Clinical application of caring theory and skills occurs in acute care hospitals. (GR)

NUR-306 Nursing Care of the Mental Health Client and Advanced Gerontologic Care
45.00 hrs lecture, 135.00 hrs lab
Units: 5.00
Prerequisite: NUR-305
Accepted For Credit: CSU
Nursing 306 is the sixth course in the nursing sequence. This course focuses on providing comprehensive nursing care with emphasis on therapeutic communication to mental health clients. Additionally, students will build on previously learned caring skills for older adults to address more complex care needs and concerns of the geriatric population across the care continuum. Nursing roles of being a provider and manager of care, communicator, teacher, and member of the profession are explored in caring for clients in community-based, inpatient behavioral health, and geriatric settings. Nurse caring skills will focus on assessments, holistic communication, the importance of self-care, multiple ways of knowing and critical thinking, spiritual health, and cultural diversity. These caring skills will be practiced in actual clinical situations, through role-playing, and/or through simulations in a multimedia setting. Students will assess, develop, implement, and evaluate care plans that respect clients' cultural beliefs related to verbal and non-verbal behaviors and the part of the mental health-mental illness continuum that clients are experiencing. Sources of stress and coping among diverse ethnic groups that may lead to violence, substance abuse, or altered life skills will be considered in care planning. In the geriatric clinical rotation, students will implement the leadership role of the RN as a manager and coordinator of care with ancillary staff. Detailed objectives are written for each class and correlate with required preparation. Clinical application of caring theory and skills occurs in acute care and community settings. (GR)

NUR-307 Nursing Leadership and Preceptorship
18.00 hrs lecture, 216.00 hrs lab
Units: 5.00
Prerequisite: NUR-305
Accepted For Credit: CSU
Nursing 307 is the final course in the nursing sequence. This course focuses on providing nursing care and first level management skills for groups of patients. Emphasis is placed on managing a full patient assignment in acute care, gerontological, and community settings. The registered nurse preceptor directly supervises the student under the guidance of the nursing faculty liaison. Professional development skills as well as current issues in nursing are discussed. This course focuses on managing groups of adults and geriatric patients with respect for the individual's cultural diversity, ethnicity, developmental stage, sexual orientation, gender, religion, and socioeconomic background related to health care practices. Students are expected to complete a senior capstone research based project on a patient care protocol used at their clinical site. Detailed objectives are written for each class and correlate with required preparation. Clinical application of caring theory and skills occurs in hospital, community, and gerontological health care settings. Simulated practice of advanced, comprehensive nursing skills occurs in a multimedia setting with high fidelity mannequins. (GR)

NUR-315 Clinical Skills Review
27.00 hrs lab
Units: 0.50
This nursing course provides supplemental instruction and enhancement of clinical skills obtained in previous nursing courses. Not applicable to associate degree. (CR)

NUR-325 International Nursing
27.00 hrs lecture, 81.00 hrs lab
Units: 3.00
Prerequisite: NUR-302; good academic standing in Nursing program; completed vaccinations and/or physical as recommended by international partner and CDC; application This course is designed for nursing students and RNs to gain an understanding of the role of the nurse in an international health care setting. Students will collaborate with international health care providers to provide basic health care in underserved communities outside of the United States. Students will gain an appreciation for the people, unique culture, and indigenous health practices. This intense course includes clinical hours in the country of choice assisting with various health care services as part of service learning. Not applicable to associate degree. (GC)

---

Did you know???

Occupations that typically require workers to have an associate degree for entry have an average annual wage of almost $53,000, compared to an average annual wage of $36,100 for workers in high school-level occupations, according to the U.S. Bureau of Labor Statistics.

Source: California Community Colleges Chancellor’s Office
Personal Development (PD)

Division: Counseling, Student Support, and Success
Dean: Andree Thomas
Division Administrative Assistant: Shawna Lujan
Location: Fremont campus, Room 7322
Phone number: 510-659-6037

This department offers Special Projects courses (PD-201, PD-202, and PD-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

PD-100 Transition to College
18.00 hrs lecture
Units: 1.00
Accepted For Credit: CSU
This course is designed for new students as an orientation to Ohlone and to college life in general. Students will become familiar with various aspects of Ohlone such as college facilities, programs, services, policies, technology, and college-wide issues. Additional topics that will be covered are study skills, academic expectations, diversity, health/wellness, and relationships. (GC)

PD-102 International Student Orientation
9.00 hrs lecture
Units: 0.50
Prerequisite: International student with F-1 Visa
Accepted For Credit: CSU
This course is designed for new International students as an orientation to Ohlone College. This course covers specific topics designed to help International students transition to college and life in the U.S. Students will become familiar with the U.S. education system, college resources, and immigration regulations for F-1 Visa holding students. (CR)

PD-103 Transfer Success in Life Transitions
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
Through the context of transferring from a community college to a university, this course will introduce students to appropriate life skills that can help them achieve greater success in their educational, personal, and professional lives. The course is designed specifically for students interested in successfully navigating the process of transferring to a college or university. Topics include goal setting; motivation; learning styles; critical thinking; decision making; degree options; university systems and transfer programs; education planning; money management and financial aid; unique transitional considerations for transfer students; and maintaining a healthy lifestyle. (GC)

PD-105 College Success
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
The goal of this course is to assist students in developing personal and academic skills needed to be successful in college and life. This course integrates personal growth, learning techniques, academic and career success, problem solving, critical and creative thinking. The course focus is on the following topics: self-evaluation and assessment; goal setting; career decision making; educational planning; time and financial management techniques; instructor-student relationships; effective communication; cultural diversity; health maintenance; stress management; college resources; learning styles and strategies including lecture note-taking, test taking, memory, and concentration. This course cannot be taken in conjunction with PD-111 or PD-113. (GC)

PD-110 Strategies for College Success
18.00 hrs lecture
Units: 1.00
Accepted For Credit: CSU & UC
This course covers specific topics designed to help students succeed in college. Additionally, students are assisted in adjusting to college life and identifying learning strategies, problem solving, academic planning, critical thinking, and individual motivation. This course cannot be taken in conjunction with PD-105 or PD-113. (GC)
PD-113 Strategies for Succeeding in College
36.00 hrs lecture
Units: 2.00
Accepted For Credit: CSU & UC
This course helps students adjust to college. The focus is on the following topics: college expectations, opportunities, and resources. This course will benefit students with a variety of learning styles while providing practical strategies for success. This course will help students develop life skills in areas such as goal setting, educational planning, health maintenance, cultural diversity, and relationships. This course cannot be taken in conjunction with PD-105 or PD-111. (GC)

PD-120A Student Leadership I
9.00 hrs lecture
Units: 0.50
Advisory: Eligible for ENGL-151B and ENGL-163, or ENGL-151RW
Accepted For Credit: CSU
This course introduces theories and practice of leadership (roles of leaders, group process, management by objectives, motivational psychology, administration of programs) through lecture, student government meetings, and programs. This course is recommended for student government officers, club officers, and individuals who want to participate in leadership roles. (CR)

PD-120B Student Leadership II
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Advisory: Eligible for ENGL-151B and ENGL-163, or ENGL-151RW
Accepted For Credit: CSU
This course is designed to continue student's understanding and application of the theories and practice of leadership (roles of leaders, group process, management of goals and objectives, and administration of programs). This course is recommended for those students who have participated in student government, clubs, and other student leadership roles. (GR)

PD-141 College Orientation for Student-Athletes
9.00 hrs lecture
Units: 0.50
Accepted For Credit: CSU
This course is designed for new student-athletes as an orientation to Ohlone College. This course will cover specific topics designed to help student-athletes transition to college and intercollegiate athletics. Students will become familiar with college resources, academic planning, time management, transfer and eligibility guidelines, and study skills. (CR)

PD-150 Career and Life Planning
36.00 hrs lecture
Units: 2.00
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU
This course will allow students to evaluate personal interests, skills, values, work styles, and experience, and relate them to the world of work. Students will also learn decision making, educational and career planning, locating career resources, job search strategies, and labor market awareness. (GC)

PD-170 Welcome Day: The Freshman Connection
9.00 hrs lecture
Units: 0.50
Accepted For Credit: CSU
Various workshops will be taught by counselors, faculty, and administrators to help students make the transition to college. Students will learn how to be successful in college, about what services are available to them, and where services are located. Attendance at Welcome Day does not satisfy the Orientation requirement. (CR)

PD-241 College Success for Athletes
36.00 hrs lecture
Units: 2.00
Accepted For Credit: CSU
This course is designed for new student-athletes to assist with the adjustment to college-level academics and athletics. The focus is on application of learning strategies, academic planning, time management, transfer and eligibility guidelines, life skills, and study skills. Additionally, this course will promote realistic expectations of college while understanding what is necessary to succeed as an intercollegiate athlete. (GC)

Philosophy (PHIL)
Division: Social Sciences
Academic Dean: Ghada Al-Masri
Division Administrative Assistant: Sheila Holland
Location: Fremont campus, Room 3316J
Phone number: 510-659-6216

This department offers Special Projects courses (PHIL-201, PHIL-202, and PHIL-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

PHIL-100 Introduction to Philosophy
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course provides an introduction to philosophy, examining various philosophers, such as Plato, Aristotle, Descartes, Locke, and Nietzsche, and enduring questions such as “What is Reality?” “Who am I?” and “What can I know?” (GC) C-ID PHIL 100

PHIL-101 Ancient Philosophy
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course is an introduction to the development of Western philosophy through a study of its beginnings in ancient Greece. Thinkers considered include the Presocratics, Socrates, Plato, Aristotle, and post-Socrates such as the Stoics and Epicureans. (GC) C-ID PHIL 130
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Hours</th>
<th>Units</th>
<th>Advisory</th>
<th>Accepted For Credit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL-102</td>
<td>Modern Philosophy</td>
<td>3.00</td>
<td>54.00</td>
<td></td>
<td>ENGL-101A</td>
<td>CSU &amp; UC</td>
<td>This course is an introduction to the history of modern philosophy. Thinkers studied include Descartes, Hobbes, Locke, Berkeley, Hume, Kant, and contemporary philosophers. (GC) C-ID PHIL 140</td>
</tr>
<tr>
<td>PHIL-104</td>
<td>Logic</td>
<td>3.00</td>
<td>54.00</td>
<td></td>
<td>ENGL-101A</td>
<td>CSU &amp; UC</td>
<td>This is an introductory course in formal deductive reasoning. Emphasis is on modern symbolic logic. Topics discussed include truth-functional connectors, truth tables, natural deduction, and proof. (GC) C-ID PHIL 110</td>
</tr>
<tr>
<td>PHIL-106</td>
<td>Ethics</td>
<td>3.00</td>
<td>54.00</td>
<td></td>
<td>ENGL-101A</td>
<td>CSU &amp; UC</td>
<td>This course examines the major ethical systems and contemporary moral issues. Ethical theories include Kantianism, Utilitarianism, Virtue Theory, and ethics of care. Moral issues include euthanasia, abortion, the death penalty, animal rights, and obligations to charity. (GC) C-ID PHIL 120</td>
</tr>
<tr>
<td>PHIL-107</td>
<td>Critical Thinking</td>
<td>3.00</td>
<td>54.00</td>
<td></td>
<td>ENGL-101A</td>
<td>CSU &amp; UC</td>
<td>This course is a practical examination of reasoning and argumentation illustrated by topics drawn from everyday life. Topics examined include the structure and form of arguments; informal fallacies; and ways in which cultural, social, and psychological factors support or detract from the reasoning process. (GC)</td>
</tr>
<tr>
<td>PHIL-109A</td>
<td>Understanding the Old Testament</td>
<td>3.00</td>
<td>54.00</td>
<td></td>
<td>ENGL-101A</td>
<td>CSU &amp; UC</td>
<td>This course is a general introduction to the Hebrew Scriptures. Emphasis will be upon the history, literature, and religion of ancient Israel, using the findings of modern Biblical scholarship. (GC)</td>
</tr>
<tr>
<td>PHIL-109B</td>
<td>Understanding the New Testament</td>
<td>3.00</td>
<td>54.00</td>
<td></td>
<td>ENGL-101A</td>
<td>CSU &amp; UC</td>
<td>This course is a general introduction to the New Testament. Emphasis will be upon the use of modern scholarship to investigate the historical, literary, and religious background of the New Testament. (GC)</td>
</tr>
<tr>
<td>PHIL-110</td>
<td>Introduction to Asian Religions</td>
<td>3.00</td>
<td>54.00</td>
<td></td>
<td>ENGL-101A</td>
<td>CSU &amp; UC</td>
<td>This course is a secular survey of the religious and philosophical thought of the great Eastern religious traditions: Hinduism, Buddhism, Confucianism, and Taoism. Cultural backgrounds and historical development will be emphasized. (GC)</td>
</tr>
<tr>
<td>PHIL-112</td>
<td>Introduction to Western Religions</td>
<td>3.00</td>
<td>54.00</td>
<td></td>
<td>ENGL-101A</td>
<td>CSU &amp; UC</td>
<td>This course is a secular comparative survey of major religious traditions of the Western World: Judaism, Christianity, Islam, etc. Cultural backgrounds and historical development will be emphasized. (GC)</td>
</tr>
<tr>
<td>PHIL-114</td>
<td>Introduction to Islam</td>
<td>3.00</td>
<td>54.00</td>
<td></td>
<td>ENGL-101A</td>
<td>CSU &amp; UC</td>
<td>This course will offer a basic overview of the nature of Islam as a religion or system of life, its culture, and its impact on Muslim individuals and groups. The course will consider the basic sources of Islam and the history of the Islamic tradition. This is a non-secular course. (GC)</td>
</tr>
<tr>
<td>PHIL-117</td>
<td>Environmental Ethics</td>
<td>3.00</td>
<td>54.00</td>
<td></td>
<td>ENGL-101A</td>
<td>CSU &amp; UC</td>
<td>This course examines the major ethical systems, environmental perspectives, and ethical issues concerning the environment. The course covers topics such as deep ecology, ecofeminism, obligations towards animals and ecosystems, climate change, and ethical protesting. (GR)</td>
</tr>
</tbody>
</table>
Physical Education (PE)

Division: Kinesiology, Athletics, and Arts
Academic Dean: Christopher Warden
Division Administrative Assistant: Maria Rocha
Location: Fremont campus, Room 9303
Phone number: 510-659-6044

This department offers Special Projects courses (PE-201, PE-202, and PE-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

PE-250 Fitness Camp
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This lifetime fitness and wellness course will emphasize total body fitness through aerobic activity, strength training, and stretching. Fitness and wellness-related lecture and lab activities will address cardiorespiratory endurance, muscular strength and endurance, safe and effective activity principles, basic nutrition principles, weight management strategies, and risk factors for disease. (GC)

PE-300A2 Beginning Basketball
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course provides students with an understanding of the fundamentals, rules, strategies, and skills of basketball. Game situations are also covered. (GC)

PE-300C2 Advanced Basketball
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course is designed to further develop the techniques of the basketball player who has been taught the fundamentals, rules, and strategies of basketball. This course is recommended for those students who have played basketball competitively or who have more than basic level basketball skills. (GC)

PE-301A2 Beginning Volleyball
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course is designed for students wishing to learn the fundamental concepts, skills, and rules of beginning volleyball. (GC)

PE-301B2 Intermediate Volleyball
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course is designed for students wishing to learn the intermediate strategies and skills of volleyball. (GC)

PE-301C2 Advanced Volleyball
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course is designed for students wishing to learn the advanced strategies and skills of volleyball. This course is recommended for the competitive volleyball player. (GC)

PE-303A2 Soccer Fundamentals
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course will introduce students to the basic techniques of soccer. Basic skills, rules, and basic strategies will be covered. (GC)

PE-336A3 Express Cardio
54.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course will use both circuit and group training formats to provide a high intensity cardio workout. The course will require students to use a variety of cardio machines, jump ropes, BOSU, and calisthenics to elevate the heart rate and improve fitness. (GC)

PE-341A2 Beginning Strength Training
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course is designed to assist students in developing a strength and fitness training program through the practical application of sound weight training techniques. (GC)

PE-341B2 Intermediate Strength Training
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year; PE-341A2, PE-342A2, PE-343A2, or PE-344A2
Accepted For Credit: CSU & UC
This course is designed to assist students with intermediate to advanced strength training concepts and techniques for personal physical development and weight room independence. This course expands students’ knowledge of progressive resistance (weight) training, with increased focus on free weights, thus increasing the variety and methods of training techniques. (GC)

PE-342A2 Circuit Training
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This activity course is designed to increase flexibility, strength, and cardiovascular endurance through the practical application of circuit training. (GC)

PE-342A3 Circuit Training
54.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This activity course is designed to increase flexibility, strength, and cardiovascular endurance through the practical application of circuit training. (GC)
PE-343A2  Strength and Cardio Training
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course provides students with an opportunity to create and practice an individualized fitness and wellness program through the use of cardiovascular equipment, circuit training, resistance machines, and free weights. (GC)

PE-343A3  Strength and Cardio Training
54.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course provides students with an opportunity to create and practice an individualized fitness and wellness program through the use of cardiovascular equipment, circuit training, resistance machines, and free weights. (GC)

PE-344A2  Total Fitness
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course provides students with a structured total body workout designed to improve fitness and health through the use of cardiovascular equipment, circuit training, resistance machines, and free weights. (GC)

PE-344A3  Total Fitness
54.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course provides students with a structured total body workout designed to improve fitness and health through the use of cardiovascular equipment, circuit training, resistance machines, and free weights. (GC)

PE-346A2  Guts and Butts
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course is a conditioning program emphasizing muscular strength, toning, and endurance for the abdominal, low back, gluteal, and thigh muscle groups. (GC)

PE-346A3  Guts and Butts
54.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course is a conditioning program emphasizing muscular strength, toning, and endurance for the abdominal, low back, gluteal, and thigh muscle groups. (GC)

PE-350A2  Learning to Swim
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course is designed for students who want to learn how to swim and become less fearful of the water. This course is also recommended for students wanting to become better swimmers. (GC)

PE-350A3  Learning to Swim
54.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course is designed for students who want to learn how to swim and become less fearful of the water. This course is also recommended for students wanting to become better swimmers. (GC)

PE-350B3  Stroke Refinement
54.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course is designed for those who already know how to swim and for students who would like more swimming instruction after completing the Learning to Swim course. The focus of this course is to improve swimming efficiency by refining swimming strokes. (GC)

PE-350C3  Intermediate Swimming
54.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course is designed to refine the four competitive swimming strokes through the use of stroke drills. This course will also include the proper starting and turning techniques for each swimming stroke. The Individual Medley will also be introduced along with its proper turns. (GC)

PE-350D2  Competitive Swimming
36.00 hrs lab
Units: 0.50
Advisory: Ability to swim 1200 yards in under 20 minutes.
Accepted For Credit: CSU & UC
This course consists of a swimming workout of progressively more difficult interval training. All four competitive strokes will be implemented as well as all associated starts, turns, and breakouts. (GC)

PE-350D3  Competitive Swimming
54.00 hrs lab
Units: 1.00
Advisory: Ability to swim 1200 yards in under 20 minutes.
Accepted For Credit: CSU & UC
This course consists of swimming workouts of progressively more difficult interval training. All four competitive strokes and their associated rules and strategies will be taught. (GC)

PE-351A2  Aquatic Conditioning
36.00 hrs lab
Units: 0.50
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course is designed for students who want to improve their swimming and conditioning skills by training the five physiological systems of the body. This course enables students to become physically fit while minimizing the risk of injury to joints of the body and improving swimming technique. (GC)
PE-351A3 Aquatic Conditioning  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed for students who want to improve their swimming and conditioning skills by training the five physiological systems of the body. This course enables students to become physically fit while minimizing the risk of injury to joints of the body and improving swimming skills. (GC)

PE-353A2 Water Polo  
36.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed for students wishing to learn the basics of water polo, including fundamental skills and strategies. (GC)

PE-360A2 Beginning Badminton  
36.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed to teach students the basic fundamentals of badminton, including rules and game strategy. (GC)

PE-360A3 Beginning Badminton  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed to teach students the basic fundamentals of badminton including rules and game strategy. (GC)

PE-360B2 Intermediate Badminton  
36.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year; PE-360A2 or PE-360A3  
Accepted For Credit: CSU & UC  
This course is designed to further develop the techniques and skill level of the badminton player. (GC)

PE-360B3 Intermediate Badminton  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed to further develop the techniques and skill level of the badminton player. (GC)

PE-362A2 Beginning Tennis  
36.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed to teach the basic fundamentals, rules, and strategies pertaining to the game of tennis. (GC)

PE-362A3 Beginning Tennis  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed to teach the basic fundamentals, rules, and strategies pertaining to the game of tennis. (GC)

PE-362B2 Intermediate Tennis  
36.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed to reinforce the fundamentals and continue developing intermediate skills of tennis. Strategy sessions in singles as well as doubles play will also be covered. (GC)

PE-362B3 Intermediate Tennis  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed to reinforce the fundamentals and continue developing intermediate skills of tennis. Strategy sessions in singles as well as doubles play will also be covered. (GC)

PE-366A3 Cardio Dance  
54.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
Students will maintain and improve cardiovascular fitness through fat-burning, dance-based workout routines that tone and shape arms, legs, and core muscles. Students will improve balance and coordination while moving to Latin, hip hop, country, and pop hits. (GC)

PE-372A3 Conditioning  
54.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is an aerobic body conditioning course which includes a cardiovascular workout, abdominal strengthening, muscle toning, and stretching exercises. (GC)

PE-372B3 Boot Camp  
54.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course combines cardiorespiratory, strength, flexibility, and core training into a back-to-basics approach to fitness. Body weight exercises—like sit-ups, push-ups, leg and abdominal strengthening—will be combined with cardiorespiratory exercises—like running and jumping rope—in intervals that will challenge you to your max. This is a no-nonsense approach to total body training that helps you reach your potential. (GC)
**PE-374A3**  
**Kickboxing**  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course utilizes martial arts techniques including kicks, punches, blocks, and defensive techniques in a cardio exercise program to enhance cardiorespiratory fitness and personal safety. (GC)

**PE-375A2**  
**Beginning Tai Chi**  
36.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This physical activity course is designed to focus on Tai Chi as a lifetime leisure activity. Tai Chi practice is suitable for all ages and levels of fitness. Benefits of regular Tai Chi practice include awareness in mindfulness or focus; stress reduction; improved balance; injury prevention through improvement in joint flexibility and stability; and increased range of motion. (GC)

**PE-375A3**  
**Beginning Tai Chi**  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This physical activity course is designed to focus on Tai Chi as a lifetime leisure activity. Tai Chi practice is suitable for all ages and levels of fitness. Benefits of regular Tai Chi practice include awareness in mindfulness or focus; stress reduction; improved balance; injury prevention through improvement in joint flexibility and stability; and increased range of motion. (GC)

**PE-375B3**  
**Intermediate Tai Chi**  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This physical activity course builds upon the basic concepts learned in Beginning Tai Chi and explores Tai Chi as an ancient martial art form. Students will cultivate and implement a comprehensive personal Tai Chi practice as a lifetime fitness and leisure activity. Benefits of Tai Chi include stress reduction; improved balance and injury prevention through improvement in joint flexibility; increased range of motion; and a general sense of wellness. Tai Chi practice is modifiable for all ages and levels of fitness. (GC)

**PE-375C3**  
**Qigong Meditation**  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed to introduce meditation techniques, both traditional and modern, to enhance one's sense of well-being and centeredness through the cultivation of lifelong self-care tools. Qigong meditation utilizes one's own breath and bio-electricity to harmonize and balance the mind and body stressors. Benefits include stress reduction, mindfulness, improved cognition, memory, and emotional regulation. (GC)

**PE-376B2**  
**Fitness Yoga**  
36.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course combines Yoga and fitness principles in a unique blend that develops muscle endurance, strength, balance, flexibility, and core stability through a series of exercises and traditional Yoga poses. (GC)

**PE-376B3**  
**Fitness Yoga**  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course combines Yoga and fitness principles in a unique blend that develops muscle endurance, strength, balance, flexibility, and core stability through a series of exercises and traditional Yoga poses. (GC)

**PE-376C2**  
**Yoga and Meditation**  
36.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course introduces the student to the basic principles and practices of yoga, including yogic breathing, positioning, and a holistic approach to a healthy mind and body. Various meditation techniques will be introduced and practiced with a focus on relaxation and stress reduction. (GC)

**PE-376A2**  
**Yoga**  
36.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed to explore the philosophies and positions related to Yoga Fundamentals. In addition, concepts of stress management and creating a personal daily Yoga practice will be introduced. (GC)

**PE-376A3**  
**Yoga**  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed to explore the philosophies and positions related to Yoga Fundamentals. In addition, concepts of stress management and creating a personal daily Yoga practice will be introduced. (GC)

**PE-376D3**  
**Walking Meditation**  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
Walking meditation helps promote and cultivate health maintenance and self-healing through regulating the mind, body, breath, and motion in real-time. Walking meditation is a Qigong exercise and meditation form used in traditional Chinese medicine for healing mind and/or body. Walking meditation is appropriate for all levels of fitness as one moves at one's chosen pace. Training includes techniques and philosophies from the Asian philosophies of Buddhism, Daoism, and Confucianism. The techniques share commonalities in utilizing the breath, focusing inward to calm the mind, and progressive clarity in cognition and physical motion. (GC)
PE-376C3  Yoga and Meditation  
$4.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course introduces the student to the basic principles and practices of Yoga, including Yogic breathing, positioning, and a holistic approach to a healthy mind and body. Various meditation techniques will be introduced and practiced with a focus on relaxation and stress reduction. (GC)

PE-378A2  Indoor Cycling  
36.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
Indoor Cycling is a group exercise class performed on stationary bikes. An outdoor ride is simulated; students travel on flat roads, climb hills, sprint, and race. The workout is non-impact and provides every fitness level an excellent workout. During this class students will burn calories, improve endurance, strengthen the lower body, and relax the mind. (GC)

PE-378A3  Indoor Cycling  
36.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
Indoor Cycling is a group exercise class performed on stationary bikes. An outdoor ride is simulated; students travel on flat roads, climb hills, sprint, and race. The workout is non-impact and provides every fitness level an excellent workout. During this class students will burn calories, improve endurance, strengthen the lower body, and relax the mind. (GC)

PE-378D3  Indoor Cycling: Heart Rate Training  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course involves continuous aerobic activity on indoor cycling bikes. Students will learn to calculate their personal target heart rate zones and will use heart rate monitors and training zones to personalize their workout. Students will learn proper body positions, indoor cycling techniques, cycling safety, methods for increasing intensity, and fitness training principles, and theories. The emphasis is on improving cardiorespiratory endurance and lower body muscular strength and endurance in a challenging but fun environment. This course is appropriate for all fitness levels. (GC)

PE-380A3  Beginning Outdoor Cycling  
54.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is an introduction to outdoor cycling for fitness. Nutrition, cardiorespiratory endurance, strength development, and age-related conditioning considerations are covered. Students participate in Bay Area bike rides as a means to improve physical fitness and maintain good health. Bike rides feature safety, efficiency, and exploring local bicycle trails unique to the San Francisco Bay Area. Rides take place on both paved and unpaved surfaces. Bicycles are provided. (GC)

PE-380B3  Intermediate Outdoor Cycling  
54.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This is a progressive course in outdoor cycling where students participate in Bay Area bike rides for improved health and wellness. This course builds upon beginning cycling skills through the introduction and practice of more technical skills, longer rides, and hills of increasing difficulty. Through this course students develop technique, strength, and endurance for cycling low level hills. Distances from 10-15 miles may be covered in each ride. Preparation, safety, hydration, efficiency, and managing energy are covered. Rides take place both on and off paved routes. Students may use their own or the college-provided bicycle. (GC)

PE-381A3  Triathlon Training  
$4.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year. Ability to swim a minimum of 500 yards using the freestyle stroke.  
Accepted For Credit: CSU & UC  
This course introduces the skills, techniques, equipment, and fitness requirements for successful participation in the sport of triathlon. Students will participate in a variety of activities designed to improve their swimming, cycling, and running skills as they prepare to complete a sprint distance triathlon (400 meter swim, 20 kilometer cycle, and 5 kilometer run). (GC)
PE-383A3  Beginning Kayaking
$4.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
Students will learn skills to kayak including terminology, etiquette, local regulations, basic paddle strokes, dock launching, and landing skills. Overnight field experience camping may be required. Equipment will be provided. (GC)

PE-383B3  Intermediate Kayaking
$4.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
Students will learn kayak skills launching and landing from/to irregular natural surfaces, two person rescue skills, and managing waves to four inches in height. Overnight field experience will be required in a wilderness setting. All equipment will be provided. (GC)

PE-384A3  Beginning Canyoneering
$4.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This is an introductory course in Canyoneering in which students will be hiking slot canyons, down climbing, rappelling, and wading through water. Basic canyoneering skills introduced will include rope handling, introductory rappelling, and entry-level bouldering skills. The course will include on and off campus meetings and an overnight field experience Canyoneering in a wilderness area. (GC)

PE-384B3  Intermediate Canyoneering
$4.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This is a progressive course in Canyoneering in which students will be hiking slot canyons, bouldering, approving anchors, and rappelling. Canyoneering skills covers use of rappel devices, foot and hand bouldering skills, and route management. The course will include on and off campus meetings and an overnight field experience Canyoneering in a wilderness area. (GC)

PE-387A3  Beginning Hiking
$4.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course will broaden the spectrum of outdoor physical education opportunities and provide necessary skills/understanding for safe participation in adventurous, outdoor hiking. (GC)

PE-387B3  Intermediate Hiking
$4.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
This course will develop greater understanding and capacity to hike distances up to 10 miles with elevation changes up to 2,000 feet. Students will learn about trail ratings; planning for extended exposure; managing hydration and energy needs; and risk management. The course includes an overnight field experience camping and hiking in a wilderness area. (GC)

PE-388A3  Beginning Rock Climbing
$4.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year
Accepted For Credit: CSU & UC
Students will learn about introductory rock climbing terminology, gear, tie-in, basic knots, and climbing techniques. Skills will be practiced on natural rock and/or artificial surfaces. The course will develop physical activity skills in rock climbing that can contribute to lifelong wellness. The course may include an overnight camping field experience where skills are practiced on natural rock. Equipment will be provided. (GC)

PE-388B3  Intermediate Rock Climbing
$4.00 hrs lab
Units: 1.00
Advisory: Medical check within the last year; PE-388A3
Accepted For Credit: CSU & UC
Students will learn top rope climbing skills to master routes designated up to 5.6 on the Yosemite decimal system. Basic belay and repel skills will be introduced. Skills will be practiced on natural and/or artificial surfaces. The course will develop physical activity skills in rock climbing that can contribute to lifelong wellness. The course may include an overnight camping field experience where skills are practiced on natural rock. Equipment will be provided. (GC)

Did you know???

Among students who left Ohlone without transferring to go into the workforce, the median annual earnings year after leaving Ohlone was $85,120.
Not only is that the highest annual earning among the 21 Bay Area community colleges, it is more than double that of students leaving 17 of those colleges.

Source: California Community Colleges Chancellor’s Office
Physical Therapist Assistant (PTA)

Division: Health Sciences
Academic Dean: Robert Gabriel
Division Administrative Assistant: Zelma Hunter
Location: Newark campus, Room NC1324
Phone number: 510-742-3100

PTA-101 Introduction to Physical Therapy
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Advisory: BIOL-103A and BIOL-103B
Accepted For Credit: CSU
This course will introduce students to the field of physical therapy by covering the history and ethics of the profession as they relate to the health care system. The course will cover the development of the team approach in health care delivery, philosophies of rehabilitation, patient relationships, and the psychosocial impact of illness and injury. Also emphasized is the scope of practice of the physical therapist assistant. Course content includes observational experiences in patient care settings. (GR)

PTA-102 Pathology
54.00 hrs lecture
Units: 3.00
Prerequisite: Admission to the PTA program. All graded PTA courses must be completed with a grade of C or better.
Accepted For Credit: CSU
This course introduces common pathological conditions with emphasis on the following systems: musculoskeletal, circulatory, respiratory, gastrointestinal, and genitourinary. The role of physical therapy in the treatment of these conditions is covered as well as interventions commonly performed by the physical therapist assistant. (GR)

PTA-103 Kinesiology I
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Prerequisite: Admission to the PTA program. All graded PTA courses must be completed with a grade of C or better.
Accepted For Credit: CSU
This course deals with the biomechanical principles of the trunk and lower extremities. The course includes the kinesiological functions of muscles and muscle groups. Clinical manifestations of muscle dysfunction are covered, as well as techniques for joint measurement. Assessment by manual muscle testing and gait analysis is also covered. (GR)

PTA-104 Kinesiology II
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Prerequisite: PTA-103. All graded PTA courses must be completed with a grade of C or better.
Accepted For Credit: CSU
This course is a continuation of Kinesiology I and deals with the biomechanical principles of the cervical spine, upper extremities, and thoracic area of the body. The course includes the kinesiological functions of muscles and muscle groups. Clinical manifestations of muscle dysfunction are covered, as well as techniques for joint measurement. Assessment by manual muscle testing and activities of daily living are presented. (GR)

PTA-105A Therapeutic Exercise I
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Prerequisite: Admission to the PTA program. All graded PTA courses must be completed with a grade of C or better.
Accepted For Credit: CSU
This course teaches the use of exercise as a preventative and rehabilitative modality for the treatment of pathological conditions. Emphasis is placed on the design and application of exercise programs to improve, maintain, and offset the effects of various pathological conditions on the body. (GR)

PTA-105B Therapeutic Exercise II
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Prerequisite: PTA-105A. All graded PTA courses must be completed with a grade of C or better.
Accepted For Credit: CSU
This course is a continuation of PTA-105A. The emphasis is on rehabilitation exercise programs, testing, and documentation. Programs on balance training, work hardening, water as rehabilitation medium, and specific orthopedic and amputee rehabilitation programs are demonstrated and discussed. (GR)

PTA-106 Orthopedics
36.00 hrs lecture
Units: 2.00
Prerequisite: PTA-301
Accepted For Credit: CSU
This course discusses common disease, injury, trauma, and surgical procedures of the musculoskeletal system with orthopedic diagnoses encountered by the physical therapist assistant (PTA) in various physical therapy settings under the direct supervision of the physical therapist. Topics include concepts of orthopedic management, tissue healing, and musculoskeletal conditions to the upper and lower extremities and spine. The course adopts the Guide to Physical Therapy and evidence-based clinical guidelines for rehabilitation for the orthopedic patient. (GR)
PTA-109 Physical Therapy Through the Life Span
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Prerequisite: PTA-105B
Accepted For Credit: CSU
This course will introduce students to the role of physical therapy treatment as it applies to the developmental process from gestation through aging. Emphasis is placed on neurodevelopmental techniques used for abnormal development in infants and children, as well as treatment protocols for patients with neurologic or musculoskeletal disorders. The aging process will be covered with concentration on the effects of exercise and activity on improving the quality of life of the individual. (GR)

PTA-110A Neurological Disorders I
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Prerequisite: PTA-105B
Accepted For Credit: CSU
This course is intended to increase students’ knowledge of the anatomy and physiology of the human nervous system including the central, peripheral, and autonomic nervous systems. Emphasis is placed on the clinical manifestations of disease or injury to the nervous system as it relates to the clinical picture of the physical therapy patient. (GR)

PTA-110B Neurological Disorders II
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Prerequisite: PTA-110A
Accepted For Credit: CSU
This course is a continuation of PTA-110A and is intended to increase the student’s knowledge of the anatomy and physiology of the human nervous system including the central, peripheral, and autonomic nervous systems. Emphasis is placed on the clinical manifestations of disease or injury to the nervous system as they relate to the clinical picture of the physical therapy patient. (GR)

PTA-111 Advanced Procedures
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Prerequisite: PTA-109
Accepted For Credit: CSU
This course is a continuation of clinical procedures mastered in PTA-108, Advanced Modalities. This course is an introduction to the application of orthotic and prosthetic devices. Included in the course is a discussion and demonstration of the types of devices utilized in the treatment of the disabled individual, as well as procedures commonly used in the maintenance, donning, and removal of these devices. Students will learn how to instruct and prepare the patient to utilize this specialized equipment. Problem solving will be utilized in assisting students to apply standardized practices to meet individual patient needs. (GR)

PTA-140 PTA Licensure Preparation
54.00 hrs lab
Units: 1.00
Prerequisite: PTA-105B
Accepted For Credit: CSU
This course is designed to assist students in preparation to sit for licensure as a physical therapist assistant. Content, scope, and format of both the National PTA Licensure Exam and the California PT Laws and Regulations Exam will be addressed. Additionally, test-taking skills, study skills, content review, and self-assessment exercises will be used to facilitate preparation for these examinations. Not applicable to associate degree. (GR)

PTA-301 Clinical Practicum I
216.00 hrs lab
Units: 4.00
Corequisite: PTA-104, PTA-105B, PTA-108
Accepted For Credit: CSU
This is the first full-time clinical assignment in the PTA program in which students perform delegated patient care responsibilities in a physical therapy clinical setting, under the supervision of a licensed physical therapist. Students will practice the application of physical therapy procedures according to their specific role such as the acute, sub-acute, outpatient, skilled nursing, or other type of physical therapy/rehabilitation clinical facility. (CR)

PTA-302 Clinical Practicum II
216.00 hrs lab
Units: 4.00
Prerequisite: PTA-109, PTA-110A, and PTA-301
Accepted For Credit: CSU
This course is designed to teach students the necessary skills for physical therapy patient care and to build on the skills and knowledge learned in PTA-301. These skills include active, passive, and resistive exercise programs; continued practice in application of thermal-based modalities; gait and transfer training. Students will collect and interpret clinical data and practice testing for strength, balance, and coordination. Students are expected to adjust patient treatment plans based on the test results and to communicate these to the clinical instructor for the purpose of modifying treatment plans. Students are required to complete a clinical in-service. Students will also learn about the clinical environment as it relates to patient referral patterns, time management, staff utilization, and clinical marketing. Laboratory experiences may include opportunities to practice in more than one setting, as designed by the instructor. (CR)

PTA-303 Clinical Internship
243.00 hrs lab
Units: 4.50
Prerequisite: PTA-302
Corequisite: PTA-110B, PTA-111, and PTA-140
Accepted For Credit: CSU
This is the third full-time clinical assignment in the PTA program in which students perform delegated patient care responsibilities in a physical therapy clinical setting, under the supervision of a licensed physical therapist. Students will practice application of physical therapy procedures according to the setting such as the acute, sub-acute, outpatient, skilled nursing, or other type of physical therapy/rehabilitation clinical facility. This course is the culmination of all previous clinical experiences. Students will utilize knowledge gained in the previous four semesters to deliver physical therapy services to patients experiencing simple to complex diagnosis. (CR)
PHYS-106 Physics for Respiratory Therapy  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Prerequisite: MATH-153  
Advisory: ENGL-151B and ENGL-163  
Accepted For Credit: CSU  
This course provides an algebra-based survey of physics, including the topics most relevant to respiratory therapy. These topics include linear motion, Newton's laws, energy, gravity, the atomic hypothesis, the phases of matter, temperature and heat, waves, electrical current, and quantum mechanics. Special emphasis will be placed on Hooke's law, pressure, gas laws, and topics related to fluid flow. Graphs and unit conversions of interest to respiratory therapy will be used. (GR)

PHYS-108 Survey of Physics  
54.00 hrs lecture  
Units: 3.00  
Advisory: MATH-153  
Accepted For Credit: CSU & UC  
This is a general education course for non-science majors that gives a non-mathematical survey of physics, exploring the fundamental underlying principles of mechanics, electromagnetism, quantum mechanics, relativity and recent developments, with illustrations to commonly encountered situations. Students can then continue to apply these basic principles to situations encountered in the physical world of everyday life. The knowledge of physics provided in this course will also help students better understand science-related current events and public policy issues. Demonstrations are used extensively. (GR)

PHYS-108A Introduction to Physics I - Calculus Supplement  
18.00 hrs lecture  
Units: 1.00  
Prerequisite: MATH-101A  
Corequisite: PHYS-120  
Accepted For Credit: CSU & UC  
This course reviews the basic concepts of limits, differentiation, and integration through their application to problems of Newtonian mechanics. The material is directly related to the topics studied in the main course (PHYS-120), but the application of calculus enables the solution of a wider range of problems. This supplement focuses on the kinematics of point masses with variable acceleration; the dynamics of point masses and rigid bodies with variable forces and accelerations, including circular motion, oscillatory motion and rotations; the calculation of impulse and work by variable forces; the calculation of potential energy functions for variable forces; the evaluation of center-of-mass and moment of inertia of rigid bodies; the equations of fluid statics and dynamics; and the wave equation. (GR)
**PHYS-121**  
**Introduction to Physics II**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: PHYS-120  
Accepted For Credit: CSU & UC  

This course is the second semester of a two-semester sequence of algebra/trigonometry based introductory physics for biomedical majors. This course is designed to provide a good foundation in electromagnetism; wave and geometrical optics; and modern physics. Topics in electromagnetism include electrostatics, including electric field and potential; electric current and basic circuits; magnetism; magnetic fields; Lorentz force; electromagnetic induction; and electromagnetic waves. Topics in optics include wave optics, interference, diffraction, polarization, ray optics, including optical instruments. In modern physics, it covers special relativity; basic ideas of quantum physics and their application to the photon theory of light; atomic and nuclear physics. (GR) C-ID PHYS 110

**PHYS-121A**  
**Introduction to Physics II - Calculus Supplement**  
18.00 hrs lecture  
Units: 1.00  
Prerequisite: MATH-101A and PHYS-120  
Corequisite: PHYS-121  
Accepted For Credit: CSU & UC  

This course reviews basic concepts in vectors, differentiation, and integration, through their application to problems in electromagnetism. The material is directly related to the topics studied in the main course (PHYS-121), but the application of calculus enables the solution of a wider range of problems. This supplement focuses on the calculation of static electric fields and their corresponding potentials due to various continuous charge distributions; calculation of static magnetic fields generated by electric current distributions; flux and induced field calculations; derivation of the capacitance and resistance of certain interesting geometries; and problems on circuits with time-dependent currents. Vector theory and a variety of integration and differentiation techniques are required. (GR)

**PHYS-140**  
**Mechanics**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: MATH-101A  
Accepted For Credit: CSU & UC  

This course is the first semester of a three-semester sequence of calculus-based introductory physics for scientists and engineers. This course provides a strong foundation in a vector-based formulation of Newtonian mechanics applied to a point mass and to a system of particles. Topics include one- and two-dimensional kinematics, including planetary and satellite orbits; Newton’s laws of motion; free-body diagrams; everyday forces; impulse-momentum; work-energy; conservative and non-conservative forces; potential energy; conservation of momentum and energy; rotation dynamics and static equilibrium of rigid objects utilizing the concepts of torque; angular acceleration and conservation of angular momentum; Newton’s law of universal gravitation; Basic fluid statics and dynamics; oscillations and an introduction to (mechanical) wave motion including sound; and the superposition and interference of waves. (GR) C-ID PHYS 205

**PHYS-141**  
**Electricity and Magnetism**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: PHYS-140 and MATH-101B  
Advisory: MATH-101C  
 Accepted For Credit: CSU & UC  

This course is the second semester of a three-semester sequence of calculus-based introductory physics for scientists and engineers. This course builds a strong foundation in the physical laws and principles of electromagnetism, grounded in a careful vector and calculus-based discussion. Throughout the course, emphasis is placed on developing the field-model of electromagnetism and on the strong connection between electrical and magnetic phenomena. Topics include the atomic basis of macroscopic electromagnetism; Coulomb’s law; electric fields of static discrete and continuous charge distributions; electric dipoles; Gauss Law; electric potential and potential energy; conductors and insulators; capacitance; electrical current and fundamentals of electric circuits including RC circuits; magnetism; Biot-Savart’s law and the magnetic fields of common current distributions; magnetic dipoles; Lorentz force; Ampere’s law; electromagnetic induction; Lenz’s and Faraday’s laws. A brief introduction to displacement current, Maxwell’s equations, and electromagnetic waves will be provided. (GR) C-ID PHYS 210

**PHYS-142**  
**Optics, Heat, and Modern Physics**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: PHYS-140 and MATH-101B  
Advisory: PHYS-141 and MATH-101C  
Accepted For Credit: CSU & UC  

A review of wave physics is offered to introduce physical optics (interference, diffraction, polarization) and to prepare for quantum physics. The basic principles of quantum physics (wave-particle duality, uncertainty principle, wave functions and probability interpretation, Schrodinger’s wave equation and quantification) are covered. Wave mechanical calculations are performed on a few simple systems (free and trapped electron, harmonic oscillator) in order to illustrate energy quantification and tunneling. In special relativity, the historical significance of speed of light measurements is discussed in order to understand Einstein’s postulates of special relativity and contrast them with Newtonian relativity. Then appropriate thought experiments are used to establish time dilation, length contraction, and relativistic expressions for Newton’s second law, momentum, acceleration, total and kinetic energy. In geometrical optics, the laws of reflection and refraction and their application to optical instruments containing lenses and mirrors are covered. In thermal physics, the concept of temperature and its meaning in kinetic gas theory is highlighted. A phenomenological study of thermal energy transfer and of the laws of thermodynamics is offered. Labs in wave physics and optics as well as in atomic physics are available. (GR) C-ID PHYS 215
Political Science (PS)

Division: Social Sciences
Academic Dean: Ghada Al-Masri
Division Administrative Assistant: Sheila Holland
Location: Fremont campus, Room 3316J
Phone number: 510-659-6216

This department offers Special Projects courses (PS-201, PS-202, and PS-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

PS-102 Introduction to American Politics
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course provides an introduction to the principles of government and the practice of politics within the United States. The course examines political actors, institutions, processes, and policies at the federal, state, and local levels. (GR) C-ID POLS 110

PS-103 Introduction to International Relations
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course provides an introduction to theories of international relations. The course examines the roles of sub-national, national, international, and transnational actors, and considers how their institutions, interactions, and processes relate to contemporary global issues. (GR) C-ID POLS 140

PS-104 Introduction to Political Theory
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course examines various theoretical approaches to politics. It traces how selected political theories and ideologies impact the development of political institutions, approach political problems, and propose solutions to these problems. Through close reading of selected theorists’ works, the course considers the relevance of theory to contemporary political issues. (GR) C-ID POLS 120

PS-105 Introduction to Comparative Politics
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course uses comparative analysis to study different kinds of political systems, including their institutions, processes, and policies; the environments in which they occur; the problems they face; and their consequences. (GR) C-ID POLS 130

PS-106 Constitutional Law and the United States
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: AJ-121
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
This course examines the development of judicial review and the evolving role of the U.S. Supreme Court through analysis of landmark decisions of the Court. In particular, this course will focus on a theoretical discussion exploring the plurality of methods of constitutional interpretation used by justices in the past and present. (GC)

Psychology (PSY)

Division: Social Sciences
Academic Dean: Ghada Al-Masri
Division Administrative Assistant: Sheila Holland
Location: Fremont campus, Room 3316J
Phone number: 510-659-6216

This department offers Special Projects courses (PSY-201, PSY-202, and PSY-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

PSY-101 General Psychology
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
Psychology is the scientific study of behavior and mental processes. Students explore the major concepts, theoretical perspectives, research methods, core empirical findings, and historic trends in psychology. Topics include research methods; neuroscience; sensation and perception; consciousness; learning; memory; motivation and emotion; lifespan development; personality; social psychology; applied psychology; disorders; and therapies. (GR) C-ID PSY 110

PSY-102 Introduction to Experimental Psychology
54.00 hrs lecture
Units: 3.00
Prerequisite: PSY-101 and MATH-159
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course is an introduction to the theory and application of the scientific method in the study of behavior. The emphasis is on experimental procedures and data collection, research design, data analysis, presentation, and research report writing. (GR) C-ID PSY 200

PSY-104 Murder in America
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: AJ-119
Advisory: ENGL-101A
Accepted For Credit: CSU
This course surveys the psychological and criminological aspects of murder throughout America, emphasizing serial killers, mass murderers, spree killers, and foreign and domestic terrorists and their victims. (GR)
PSY-105 Child Development
$4.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A, PSY-101
Accepted For Credit: CSU & UC
This course examines the development of children from conception through adolescence. Course includes the study of prenatal, physical, cognitive, linguistic, social, and emotional development. The course examines many of the concerns and complex issues involved in this developmental period, and considers the contexts in which they occur. (GR)

PSY-106 Adolescent Development
$4.00 hrs lecture
Units: 3.00
Advisory: PSY-101, ENGL-101A
Accepted For Credit: CSU & UC
This course examines the scientific study of the developmental period of adolescence—including physical, cognitive, and socio-emotional development—and the contexts in which development occurs. (GC)

PSY-108 Human Development
$4.00 hrs lecture
Units: 3.00
Advisory: PSY-101, ENGL-101A
Accepted For Credit: CSU & UC
This course provides an overview, from a psychological perspective, of human development from conception through death, including biological and environmental influences. Theories and research of physical, cognitive, personality, and social development are examined, as well as attention to developmental problems. (GC) C-ID PSY 180

PSY-112 Social Psychology
$4.00 hrs lecture
Units: 3.00
Advisory: PSY-101, ENGL-101A
Accepted For Credit: CSU & UC
This course considers individual human behavior in relation to the social environment. The power of the situation, other individuals, and the social group are examined. Emphasized topics include aggression; prejudice and stereotypes; interpersonal attraction; attitudes and attitude change; conformity; group phenomena; gender roles; cultural norms; person perception; and social cognition. (GC) C-ID PSY 170

PSY-115 Abnormal Psychology
$4.00 hrs lecture
Units: 3.00
Advisory: PSY-101, ENGL-101A
Accepted For Credit: CSU & UC
This course introduces the scientific study of psychopathology and atypical behaviors, broadly defined. Students investigate abnormal behavior from a variety of perspectives including biological, psychological, and sociocultural approaches. An integrative survey of theory and research in abnormal behavior, and intervention and prevention strategies for psychological disorders are also introduced. (GC) C-ID PSY 120

PSY-120 Biological Psychology
$4.00 hrs lecture
Units: 3.00
Prerequisite: PSY-101
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course introduces the scientific study of the biological bases of behavior and its fundamental role in the neurosciences. Physiological, hormonal, and neurochemical mechanisms and brain-behavior relationships underlying the psychological phenomena of sensation, perception, regulatory processes, emotion, learning, memory, and psychological disorders are addressed. The course also notes historical scientific contributions and current research principles for studying brain-behavior relationships and mental processes. Ethical standards for human and animal research are discussed in the context of both invasive and non-invasive experimental research. (GR) C-ID PSY 150

PSY-139 Psychology in the Workplace
$4.00 hrs lecture
Units: 3.00
Cross-referenced Course: BA-139
Advisory: PSY-101, ENGL-101A
Accepted For Credit: CSU
This course applies principles of psychology to the workplace. Topics include combination skills, stress, cultural diversity, teamwork, understanding self and others, motivation, leadership, and other factors crucial to functioning effectively in the workplace. (GC)

Did you know???

With more than 2.1 million students on 115 campuses, the California Community Colleges is the largest system of higher education in the United States.

Source: California Community Colleges Chancellor’s Office
### Real Estate (RE)

**Division:** Business  
**Academic Dean:** Andrew LaManque  
**Location:** Newark campus, Room NC1220  
**Phone number:** 510-742-2301

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE-117</td>
<td>Computer Applications in Real Estate</td>
<td>45.00 hrs lecture, 27.00 hrs lab</td>
<td>3.00</td>
<td>The Real Estate Computer Applications course covers computer hardware and software basics that apply to real estate practitioners. Computer technology has changed the way this country does business, particularly in the field of real estate. Statistics show that buyers now use the Internet during their initial search for a new home or real estate loan. Real Estate Computer Applications provides a broad overview of Internet and software applications used in the day-to-day life of real estate and related professions. This course covers the very simple basics of computer skills and progresses to the more complex tasks such as downloading information and forms and using real estate-specific software for accounting, property management, escrow, and more. The course identifies hundreds of useful website addresses to help in computer and real estate-related tasks, as well as instruction on how best to access the information that the real estate agent/broker will need in the business. (GR)</td>
</tr>
<tr>
<td>RE-121</td>
<td>Real Estate Principles</td>
<td>4.00 hrs lecture</td>
<td>3.00</td>
<td>This is a fundamental real estate course covering basic laws and principles of California real estate. The course provides background and terminology necessary for advanced study in specialized courses and is required in order to qualify for the real estate sales license examination. (GR)</td>
</tr>
<tr>
<td>RE-122</td>
<td>Real Estate Practice</td>
<td>4.00 hrs lecture</td>
<td>3.00</td>
<td>The day-to-day business of real estate including how to do listings, deposit receipts, open escrows, and obtain financing will be covered in this course. This course is one of the required courses for the real estate salesperson license. (GR)</td>
</tr>
<tr>
<td>RE-124</td>
<td>Legal Aspects of Real Estate</td>
<td>4.00 hrs lecture</td>
<td>3.00</td>
<td>This course is a study of California real estate law including rights incident to property ownerships and management, agency, contracts, and application of real estate transfer. Specific topics include conveyance, probate proceedings, trust deeds, foreclosure, and recent legislation governing real estate transactions. This course is one of the required courses for the broker's license examination. (GR)</td>
</tr>
</tbody>
</table>

### Real Estate Finance

**Course Code:** RE-126  
**Credit Hours:** 54.00 hrs lecture  
**Units:** 3.00  
**Advisory:** RE-121  
**Accepted For Credit:** CSU  
This course covers the various types of lenders, their policies, and the market they serve. The course will present basic terminology, official agencies, and private enterprise essential to real estate finance including secondary markets, conventional lenders, and FHA/VA policies. This is one of the required courses for the State of California Real Estate Broker’s Examination. (GR)

### Respiratory Therapist (RT)

**Division:** Health Sciences  
**Academic Dean:** Robert Gabriel  
**Division Administrative Assistant:** Zelma Hunter  
**Location:** Newark campus, Room NC1324  
**Phone number:** 510-742-3100

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT-101</td>
<td>Principles of Respiratory Therapy I</td>
<td>54.00 hrs lecture</td>
<td>3.00</td>
<td>This course presents basic theory and rationale for respiratory care. The course includes the history and organization of respiratory therapy services, basic cardiopulmonary anatomy, physiology, medical gas therapy theory, and an introduction to pathophysiology. (GR)</td>
</tr>
<tr>
<td>RT-101L</td>
<td>Beginning Clinical Practice</td>
<td>54.00 hrs lab</td>
<td>1.00</td>
<td>This course introduces students to the care of patients requiring respiratory therapy modalities. The course also covers beginning level assessment skills, patient interviewing techniques, and the establishment and monitoring of therapeutic equipment systems. (CR)</td>
</tr>
</tbody>
</table>
RT-102  Beginning Laboratory  
108.00 hrs lab  
Units: 2.00  
Prerequisite: Admission to the Respiratory Therapist program  
Accepted For Credit: CSU  
This course provides laboratory practice of beginning-level therapist skills including administration of medical gases, medicated aerosols, and incentive spirometry techniques. (CR)

RT-103  Basic Patient Care  
27.00 hrs lab  
Units: 0.50  
Prerequisite: Admission to the Respiratory Therapist program  
Accepted For Credit: CSU  
This course provides simulated practice of patient care skills in a simulated environment. (CR)

RT-104A  Principles of Respiratory Therapy II  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: Admission to the Respiratory Therapist program  
Accepted For Credit: CSU  
This course is designed to study theory related to intermediate level respiratory care skills including endotracheal intubation, management of artificial airways, humidity, aerosol therapy, beginning cardiac anatomy, physiology, and respiratory care pharmacology. (GR)

RT-104B  Principles of Respiratory Therapy III  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: RT-101  
Accepted For Credit: CSU  
This course covers theory related to analysis of cardiopulmonary assessment findings and cleaning and sterilization of respiratory care equipment. This course also includes study of additional fundamentals of respiratory physiology including assessment of oxygenation and hypoxia, beginning acid base balance, and arterial blood gas analysis. (GR)

RT-105A  Intermediate Laboratory I  
54.00 hrs lab  
Units: 1.00  
Prerequisite: RT-101  
Accepted For Credit: CSU  
This course provides laboratory practice of intermediate-level therapist skills including chest assessment, volume expansion therapy, chest physical therapy, and basic airway management techniques. (CR)

RT-105B  Intermediate Laboratory II  
27.00 hrs lab  
Units: 0.50  
Prerequisite: RT-101  
Accepted For Credit: CSU  
This course is an introduction to ventilator and emergency airway management for respiratory therapy students. The course provides laboratory practice of advanced techniques required in emergency and critical care settings within the laboratory confines. (CR)

RT-107  Intermediate Clinical Practice  
216.00 hrs lab  
Units: 4.00  
Prerequisite: RT-101  
Accepted For Credit: CSU  
This is a supervised clinical experience course at area hospitals for Respiratory Therapist students. The course emphasizes the practice of beginning and intermediate-level problem-solving and technical skills including assessment, oxygen therapy, humidity and aerosol administration, chest physical therapy, hyperinflation therapy, airway management, and beginning artificial ventilation. Students practice focused assessment related to disease processes specific to varying ethnic populations in order to provide appropriate care. (CR)

RT-108  Basic Principles of Respiratory Pathophysiology  
18.00 hrs lecture  
Units: 1.00  
Prerequisite: RT-101  
Accepted For Credit: CSU  
This course emphasizes the principles of common pathophysiologic conditions encountered by respiratory therapy practitioners. (GR)

RT-130A  Advanced Respiratory Therapy I  
45.00 hrs lecture  
Units: 2.50  
Prerequisite: RT-131A  
Accepted For Credit: CSU  
The focus of this course is the study of advanced respiratory care. The course includes invasive and non-invasive monitoring, hemodynamic monitoring systems, advanced arterial blood gas interpretation, x-ray, clinical laboratory, electrocardiogram interpretation, carbon dioxide transport, and monitoring. (GR)

RT-130B  Advanced Respiratory Therapy II  
27.00 hrs lecture  
Units: 1.50  
Prerequisite: RT-132  
Accepted For Credit: CSU  
This course presents concepts of advanced respiratory care with emphasis on recognition, interpretation, treatment of cardiopulmonary anatomical, and physiological alterations of the body as a consequence of disease or trauma. (CR)

RT-130L  Advanced Clinical Practice  
108.00 hrs lab  
Units: 2.00  
Prerequisite: RT-131A  
Accepted For Credit: CSU  
This is a supervised clinical experience course at area hospitals for Respiratory Therapist students. The course emphasizes the practice of advanced-level technical skills including procedures employed in emergency care situations, artificial airway maintenance and discontinuance, arterial blood sampling measurements, and initiation and termination of mechanical ventilatory life support. (CR)
RT-131A  Principles of Mechanical Ventilation I  
45.00 hrs lecture  
Units: 2.50  
Prerequisite: RT-105B  
Accepted For Credit: CSU  
This course presents the scientific basis for continuous mechanical ventilatory interventions employed in clinical practice of respiratory care with an emphasis on classification, selection, setup, maintenance, complications, adjuncts to, and discontinuance of mechanical ventilatory life support. (GR)

RT-131B  Principles of Mechanical Ventilation II  
45.00 hrs lecture  
Units: 2.50  
Prerequisite: RT-132  
Accepted For Credit: CSU  
This course builds on the foundation of mechanical ventilation already learned. Therapeutic interventions, complications, effects, discontinuation, and special techniques of mechanical ventilation will be presented. (GR)

RT-132  Advanced Laboratory  
54.00 hrs lab  
Units: 1.00  
Prerequisite: RT-131A  
Accepted For Credit: CSU  
This course provides laboratory practice of advanced respiratory therapy skills including establishment, stabilization, maintenance, and discontinuance of endotracheal and tracheotomy tubes; arterial blood sampling techniques; radiographic and electrocardiogram interpretation; and invasive and non-invasive monitoring. (CR)

RT-133  Mechanical Ventilation Laboratory  
108.00 hrs lab  
Units: 2.00  
Prerequisite: RT-131A  
Accepted For Credit: CSU  
This course provides laboratory practice of advanced skills related to the safe application and initiation of mechanical ventilation. Students will become familiar with multiple neonatal and adult mechanical ventilators as well as gain an increased understanding of the various modes offered. (CR)

RT-134  Neonatal and Pediatric Respiratory Care  
18.00 hrs lecture  
Units: 1.00  
Prerequisite: RT-105B  
Accepted For Credit: CSU  
This course addresses fetal development and special problems in the adaptation of respiratory care procedures and techniques to the needs of the neonatal and developing child. (GR)

RT-134L  Clinical Practicum in Neonatal and Pediatric Respiratory Care  
81.00 hrs lab  
Units: 1.50  
Prerequisite: RT-134  
Accepted For Credit: CSU  
This clinical course specializes in the respiratory care of the neonatal and pediatric population. (CR)

RT-135  Computer Simulation for Respiratory Care  
27.00 hrs lab  
Units: 0.50  
Prerequisite: RT-132  
Accepted For Credit: CSU  
This course prepares students for the Respiratory Care National Board Clinical Simulation Examination which requires specialized knowledge in solving patient management problems written in a branching logic format. Students will practice basic computer skills involving data entry and retrieval. (GR)

RT-136  Critical Care Clinical Practice  
189.00 hrs lab  
Units: 3.50  
Prerequisite: RT-132  
Accepted For Credit: CSU  
This is a supervised clinical experience course at area hospitals. Advanced level respiratory care skills including cardiopulmonary assessment, management, evaluation, and decision-making processes involved in the care of the ICU patient are emphasized. The student in this course practices as a member of the hospital health care team. (GR)

RT-137  Home Respiratory Care and Pulmonary Rehabilitation  
9.00 hrs lecture  
Units: 0.50  
Prerequisite: RT-132  
Accepted For Credit: CSU  
This course provides an overview of the respiratory therapists’ involvement in the home care industry and rehabilitation of the patient coping with chronic cardiopulmonary disease. Decision making, formulation of care plan, and patient teaching are emphasized in this course. (GR)

RT-138  Specialty Rotations in Respiratory Care  
27.00 hrs lab  
Units: 0.50  
Prerequisite: RT-132  
Accepted For Credit: CSU  
This is a supervised clinical experience course at area home care establishments, local hospitals, and pulmonary physicians’ office. Students will have the opportunity to select experiences that match their interests including individual rotations with physicians, participation in ongoing pulmonary rehabilitation programs, and visitation of patients receiving respiratory home care. (CR)

RT-139  Pulmonary Function Testing  
18.00 hrs lecture  
Units: 1.00  
Prerequisite: Admission to the Respiratory Therapist program  
Accepted For Credit: CSU  
This course provides an in-depth survey of various pulmonary laboratory methods to detect the presence and degree of respiratory impairment/disease. (GR)

RT-139L  Clinical Practice in Pulmonary Function Testing  
27.00 hrs lab  
Units: 0.50  
Prerequisite: Admission to the Respiratory Therapist program  
Accepted For Credit: CSU  
This course provides supervised clinical experience at area hospitals. Various pulmonary laboratory methods for detecting the presence of respiratory impairment/disease are emphasized. (CR)
This department offers Special Projects courses (SOC-201, SOC-202, and SOC-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

**SOC-101 Introduction to Sociology**
- 54.00 hrs lecture
- Units: 3.00
- Advisory: ENGL-101A
- Accepted For Credit: CSU & UC

This course is an exploration of our culturally diverse society. The course examines the impact of society's structure on human behavior and group interaction. This course offers a multiperspective approach to analyzing the diversity and complexity of social life. (GC) C-ID SOCI 110

**SOC-102 Social Problems**
- 54.00 hrs lecture
- Units: 3.00
- Advisory: ENGL-101A
- Accepted For Credit: CSU & UC

This course analyzes the nature and characteristics of social problems within the context of sociological theory. The course examines four major areas of social problems. First, the course explores social problems of behavioral deviance, such as those related to sexual behavior, alcohol and drugs, violence, and crime. Second, the course examines social problems of inequality, including economic, racial/ethnic, gender, and sexual orientation inequalities. Third, the course looks at problems of social institutions, such as problems situated in health care, the criminal justice system, and the family. Fourth, the course analyzes social change and global social problems, including those related to urbanization, the environment, and war. This course introduces theoretical frameworks for understanding the causes and effects of social problems, as well as potential solutions for social problems. (GC) C-ID SOCI 115

**SOC-103 Social Science Research Methods**
- 54.00 hrs lecture, 54.00 hrs lab
- Units: 4.00
- Prerequisite: SOC-101
- Advisory: ENGL-101A
- Accepted For Credit: CSU & UC

This course introduces students to research methods used in the social sciences. Students will examine critical issues and techniques in research design, data collection, and data analysis. The course also investigates the ethical responsibilities of social science researchers. This course contains a lab component that provides students with practical experience in evaluating and conducting social science research. (GC) C-ID SOCI 120

**SOC-105 Marriage and Family**
- 54.00 hrs lecture
- Units: 3.00
- Advisory: ENGL-101A
- Accepted For Credit: CSU & UC

This course examines the family as a social institution and includes an analysis of historical and recent changes. Students will study the present nature of marriage and family, and the socio-cultural and economic forces shaping these changes. Emphasis is placed on understanding interpersonal relationships, gender roles, mate selection, marital and parental roles, as well as variations of family structures. (GC) C-ID SOCI 130

**SOC-106 Chicano/Latino Culture**
- 54.00 hrs lecture
- Units: 3.00
- Cross-referenced Course: CHS-101
- Accepted For Credit: CSU & UC

This course examines the social, cultural, political, and economic heritage of the Chicanos and their contribution to American society. (GR)

**SOC-108 Social Inequalities**
- 54.00 hrs lecture
- Units: 3.00
- Advisory: Eligible for ENGL-101A
- Accepted For Credit: CSU & UC

This course focuses on various forms of social inequalities that exist within the United States. The course examines patterns of economic, status, and political inequalities on the basis of multiple, and intersecting, factors such as social class, gender, sexual orientation, and race/ethnicity. The course analyzes classical and contemporary explanations of inequalities and the consequences of inequalities on individuals and groups. The course also explores social mobility and changes in the systems of inequalities. (GC)
Spanish (SPAN)
Division: Language, Communication, and Academic Success
Academic Dean: Mark Lieu
Division Administrative Assistant: Dana Pope
Location: Fremont campus, Room 3420K
Phone number: 510-659-6173

This department offers Special Projects courses (SPAN-201, SPAN-202, and SPAN-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

SPAN-101A Elementary Spanish
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course is an introduction to fundamentals of Spanish grammar through the development of speaking, reading, writing, and listening skills. Course material is presented within the cultural context of Spanish-speaking countries. (GR) C-ID SPAN 100

SPAN-101B Elementary Spanish
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: SPAN-101A or two years high school Spanish
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course is an introduction to the fundamentals of Spanish grammar through the development of speaking, reading, writing, and listening skills. Course material is presented within the cultural context of Spanish-speaking countries. This course is a continuation of SPAN-101A studies. (GR) C-ID SPAN 110

SPAN-102A Intermediate Spanish
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: SPAN-101B or three years of high school Spanish
Accepted For Credit: CSU & UC
This course is the first half of Intermediate Spanish and a continuation of the SPAN-101 series. The course includes a more in-depth review of grammar, composition, and development of conversation skills through an introduction to Spanish and Latin-American literature. Readings include short stories, essays, dramas, poetry, and journalism articles in Spanish. (GR) C-ID SPAN 200

SPAN-102B Intermediate Spanish
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: SPAN-102A
Accepted For Credit: CSU & UC
This course is the second half of Intermediate Spanish and a continuation of SPAN-102A. The course continues with a more in-depth review of advanced grammar, composition, and development of conversation skills through an introduction to Spanish and Latin-American literature. Readings include short stories, essays, dramas, poetry, and journalism articles in Spanish. (GR) C-ID SPAN 210

SPAN-121A Beginning Conversational Spanish
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU
This course teaches essentials in Spanish conversation leading to the development of oral use of the Spanish language in everyday situations. Students will experience extensive oral practice of the language as well as essential grammatical fundamentals. (GR)

SPAN-121B Beginning Conversational Spanish
54.00 hrs lecture
Units: 3.00
Prerequisite: SPAN-101A or SPAN-121A
Advisory: SPAN-101B
Accepted For Credit: CSU
This course continues teaching the essentials in Spanish conversation leading to the development of oral use of the Spanish language in everyday situations. Students will experience extensive oral practice of the language as well as essential grammatical fundamentals. Conducted in Spanish, this course will further develop the audio-lingual skills that the students have acquired in their early Spanish language training. Emphasis will be placed on maintaining ideas and concepts in actual conversation situations, taken from topics of most interest to students. (GC)

Theatre and Dance (TD)
Division: Kinesiology, Athletics, and Arts
Academic Dean: Christopher Warden
Division Administrative Assistant: Maria Rocha
Location: Fremont campus, Room 9303
Phone number: 510-659-6044

This department offers Special Projects courses (TD-201, TD-202, and TD-203). Please see page 156 of this catalog for more information regarding Special Projects courses.

TD-100 Survey of the Arts
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: ART-100, IS-100, MUS-100
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
Art, music, and theatre are explored in this course through discussion, historical review, and contemporary issues. The purpose of this course is to increase student's understanding and enjoyment of the arts. The course is taught by three instructors, one from each discipline. (GR)
TD-102  Introduction to Theatre Appreciation
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Advisory: TD-100
Accepted For Credit: CSU & UC
This course is a study of the combined elements of contemporary theatre through examination of audience/performer relationships and the organization of support personnel. The focus is on current and classical plays with special emphasis on dramatic analysis, cultural significance, and critical thinking. Mandatory attendance is required at selected Bay Area theatres at students’ expense. (GC) C-ID THTR 111

TD-103  International Performing Arts Appreciation
27.00 hrs lecture, 36.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
This is a study abroad course intended to provide students with a global understanding and appreciation of contemporary, traditional, and classical performing arts. Students will travel to international destinations and will attend live performances of theatre, dance, opera, and music, among other performing arts. Additional fees will be required. (GC)

TD-104  Touring Theatrical Production
27.00 hrs lecture, 54.00 hrs lab
Units: 0.50
Accepted For Credit: CSU & UC
This course requires students to participate in a field trip which consists of a full theatrical production that tours nationally or internationally. Student actors and crew members learn the basics and necessities of touring a play, musical, or dance production. For students unable to participate in the tour, all assignments will be due during the rehearsal period prior to the tour beginning. (GR)

TD-107  History of Film
$4.00 hrs lecture
Units: 3.00
Cross-referenced Course: HIST-107
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course examines the impact of film on our lives and history. Students will review films; discuss and analyze techniques used. (GR)

TD-109  Theatre for Today
$4.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course is designed for students who wish to explore and experience the contemporary world of theatre, its cultural differences, and how it relates to film and the entertainment industry. This course examines all aspects of production: designing, producing, the audience experience, and employment opportunities. Students learn through reading and research; attending live events; student-generated reports; and blogs. (GR)

TD-110  Introduction to Acting
$4.00 hrs lecture, $4.00 hrs lab
Units: 4.00
Advisory: ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course is an examination and application of theatre elements that relate directly to the actor including, but not limited to, criticism, emotion, stage movement, vocal techniques, theatrical terminology, rehearsal and performance techniques, team building, teamwork, collaboration, and script analysis. (GR) C-ID THTR 151

TD-111  Intermediate Acting - Scene Study
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: TD-110
Accepted For Credit: CSU & UC
This course is an advanced study in the principles and practices of contemporary acting techniques. Students will analyze and evaluate the acting theories of the Stanislavski system of acting, as assessed by national and international acting leaders such as Uta Hagen, Stella Adler, Michael Shurtleff, Lee Strasberg, Ivanna Chubbuck, Larry Moss, etc. Students will apply these principles to their scene work, auditions, workshop experiences, and evaluate their progress. Team building, teamwork, and collaborative skills are developed throughout the course. (GR) C-ID THTR 152

TD-112  Acting Styles-Classical
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: TD-110
Accepted For Credit: CSU & UC
This course is a study of dramatic literature for the purpose of performance, including major study of Shakespeare comedies, tragedies, and histories. Background examination and performance appraisal will highlight each area of study. The emphasis is upon performance of characters in monologue and scene work from selected plays. Selected plays will be studied and several will be viewed both live and on video. (GR)

TD-113  Advanced Acting
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: TD-111
Accepted For Credit: CSU & UC
This course explores advanced exercises and techniques which enable students to create a believable character and access real emotions in theatre rehearsals and performances. Students will build off of the basic and foundational lessons learned in previous Acting courses, and will expand their repertoire in contemporary and classical theatre. (GR)

TD-114A  Acting for the Camera I
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Accepted For Credit: CSU & UC
This course includes analysis and practical study of techniques and skills necessary for performing in front of the camera. Emphasis is placed on acting, but the course includes daily work in practical cinematography, directing, script supervision, and crewing for all styles of film and video. (GR)

TD-115A  Theatre Improvisation
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
Students will learn how to improvise a story, character, and setting. They will create improvisations through pantomime as well as vocal techniques. There will be a public performance final at the end of the term. (GR)
TD-116  Acting Laboratory
4.00 hrs lab
Units: 1.00
Accepted For Credit: CSU & UC
This laboratory course covers a variety of acting styles, such as Commedia, Comedy of Manners, Stanislavski, film, and musicals. (GC)

TD-117  Musical Theatre Performance
216.00 hrs lab
Units: 4.00
Prerequisite: Audition
Accepted For Credit: CSU
This course is designed to familiarize students with the principles and complexities involved in the preparation of a musical theatre production. Specific instruction is given to actors, dancers, and singers in taking and implementing direction and applying it in a theatrical production. (GR)

TD-118  Survey of Acting Techniques
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This course is an active survey of, and participation in, a variety of public performance techniques, including scenework, monologues, Shakespeare, film acting, improvisation, avant-garde styles, and theatre games. (GC)

TD-119  Directing for the Stage
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: TD-110 and TD-114A
Accepted For Credit: CSU & UC
This course is designed for theatre students to study the techniques for the director in theatre with an emphasis on practical experience in directing through class projects and public performances. (GR)

TD-120A  Student Repertory Theatre
162.00 hrs lab
Units: 4.00
Prerequisite: Auditioning (for actors only)
Advisory: TD-110
Accepted For Credit: CSU & UC
This course is for students performing in a major college production in a principal role. (GR) C-ID THTR 191

TD-120B  Student Repertory Theatre
18.00 hrs lecture, 162.00 hrs lab
Units: 4.00
Accepted For Credit: CSU & UC
This course is a combination of professional and educational theatre. Students participate in performance and technical roles in a repertory company. There will be a variety of plays presented for public performance. Members of the company will be expected to participate in all phases of production. (GR) C-ID THTR 191

TD-121A  Dance Rehearsal and Performance
108.00 hrs lab
Units: 2.00
Advisory: Concurrent enrollment in a dance technique class
Accepted For Credit: CSU & UC
This course is an educational setting for dance performance experience. The student will learn the ins and outs of a theatrical dance performance. Each student, regardless of skill level, will be given the opportunity to perform on stage in a professional setting with the security of an educational environment. The course also supports the Theatre Technology students to do the same. (GC)

TD-121B  Dance Rehearsal and Performance
162.00 hrs lab
Units: 3.00
Advisory: Concurrent enrollment in a dance technique class
Accepted For Credit: CSU & UC
This course is an educational setting for dance performance. The student will learn the ins and outs of a theatrical dance performance. Each student, regardless of skill level, will be given the opportunity to perform on stage in a professional setting with the security of an educational environment. (GC)

TD-121C  Dance Rehearsal and Performance
216.00 hrs lab
Units: 4.00
Advisory: Concurrent enrollment in a dance technique class
Accepted For Credit: CSU & UC
This course is an educational setting for dance performance. The student will learn the ins and outs of a theatrical dance performance. Each student, regardless of skill level, will be given the opportunity to perform on stage in a professional setting with the security of an educational environment. It also supports the Theatre Technology students to do the same. (GR)

TD-122  Rehearsal and Performance
108.00 hrs lab
Units: 2.00
Prerequisite: Audition or tryout
Accepted For Credit: CSU & UC
This course is for students studying the requirements of an understudy position or acting internship in a major college production. Understudies will study and prepare a leading and/or supporting role with the possibility of performing in front of a live audience. Acting interns will study and prepare a leading and/or supporting role to perform for the director/instructor only. Enrollment is for the duration of the production. (GR)

TD-123  Rehearsal and Performance
162.00 hrs lab
Units: 3.00
Prerequisite: Audition or tryout
Accepted For Credit: CSU & UC
This course is for students performing in a major college production in a supporting role. Enrollment is for the duration of the production. (GR)

TD-124  Rehearsal and Performance
216.00 hrs lab
Units: 4.00
Prerequisite: Audition
Advisory: Eligible for ENGL-151B and ENGL-163; TD-110
Accepted For Credit: CSU & UC
This course is for students performing in a major college production in a principal role. (GR) C-ID THTR 191
### TD-125 Summerfest - Principals
- **Units:** 5.00
- **Prerequisite:** Audition
- **Accepted For Credit:** CSU & UC
This course is designed to familiarize students with the principles and complexities involved in the preparation and production of the Summerfest production in a principal role. Specific instruction will be given in acting, movement, speech, music, and voice/singing as appropriate and as it relates to the style and historical period. (GC)

### TD-126 Summerfest - Featured Parts
- **Units:** 4.00
- **Prerequisite:** Audition
- **Accepted For Credit:** CSU & UC
This course is designed to familiarize students with the principles and complexities involved in the preparation and production of the Summerfest production in a featured role. Specific instruction will be given in acting, movement, speech, music, and voice/singing as appropriate as it relates to the style and history of the period. (GC)

### TD-127 Summerfest - Chorus and Ensemble
- **Units:** 3.00
- **Accepted For Credit:** CSU & UC
This course is designed to familiarize students with the principles and complexities involved in the preparation and production of the Summerfest production as a chorus or ensemble member. Specific instruction and direction will be given in acting, movement, speech, and the implementation of directorial notes as they relate to the style and history of the piece. (GC)

### TD-129 Summerfest - Technicians
- **Units:** 5.00
- **Advisory:** TD-150
- **Accepted For Credit:** CSU & UC
This course is normally taught as an eight to ten-week summer session course. It is designed to familiarize and teach students the various technical aspects (i.e., set construction, lighting, costuming, makeup, publicity and house management) needed for the preparation and production of a major theatrical Summerfest production. (GR)

### TD-130 Oral Interpretation of Literature
- **Units:** 3.00
- **Cross-referenced Course:** COMM-130
- **Advisory:** ENGL-151B
- **Accepted For Credit:** CSU & UC
Using performance as a communication concept, students will explore performance theory and apply theoretical communication theories of performance using all genres of literature. (GR) C-ID COMM 170

### TD-132 Voice and Diction
- **Units:** 3.00
- **Cross-referenced Course:** COMM-132
- **Accepted For Credit:** CSU & UC
Students learn to understand and enhance the speaking voice and vocal quality through oral exercises that focus on expressiveness and articulation. Students also increase vocabulary and use the International Phonetic Alphabet in transcription and pronunciation. (GR)

### TD-134 Introduction to Performance Studies
- **Units:** 3.00
- **Cross-referenced Course:** COMM-134
- **Accepted For Credit:** CSU & UC
Live performance is used as a method for exploring human behavior as it occurs within contemporary cultures and societies. Performance assignments will draw from among the following: performance of texts, street performance, personal narrative, oral history, everyday life, and social justice. (GR)

### TD-141A Introduction to Ballet
- **Units:** 2.00
- **Accepted For Credit:** CSU & UC
This course introduces the rudiments of classical ballet to the beginning dance student. Students will develop the strength and coordination to perform the technical skills of basic ballet through barre and center work and by learning simple movement combinations. Ballet terminology will be covered. Requires attendance at selected events offered by Ohlone College at the Gary Soren Smith Center for the Fine and Performing Arts. (GR)

### TD-141B Intermediate Ballet
- **Units:** 2.00
- **Prerequisite:** TD-141A
- **Advisory:** Medical check within the last year
- **Accepted For Credit:** CSU & UC
This course continues the training in the rudiments of classical ballet for the intermediate level student. Students will further develop the technical skills to perform intermediate-level choreography. Ballet II terminology will be covered. (GR)

### TD-142A Introduction to Jazz Dance
- **Units:** 2.00
- **Advisory:** Medical check within the last year
- **Accepted For Credit:** CSU & UC
Students will learn the basic skill of jazz dance with emphasis on body alignment, strength, and coordination. Requires attendance at selected events offered by Ohlone College at the Gary Soren Smith Center for the Fine and Performing Arts. (GR)

---

**Did you know??**

The Gary Soren Smith Center on the Fremont campus is named in recognition of a significant donation in honor of Dr. Gary Smith, the first music faculty member hired at Ohlone and eventual Division Director.
TD-142B Intermediate Jazz Dance
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Advisory: TD-142A
Accepted For Credit: CSU & UC
Students will work on more advanced skills and styles inherent in jazz dance. Class work will deal with technical skills, combinations of steps, and exploration of composition in jazz dance form. Requires attendance at selected events offered by Ohlone College at the Gary Soren Smith Center for the Fine and Performing Arts. (GR)

TD-142C Advanced Jazz Dance
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Advisory: TD-142B
Accepted For Credit: CSU & UC
Students will complete advanced skills inherent in jazz dance. This advanced level technical jazz dance course will deal with leaps, turns, and technique as well as dance composition. Requires attendance at selected events offered by Ohlone College at the Gary Soren Smith Center for the Fine and Performing Arts. (GR)

TD-143A Introduction to Tap
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Accepted For Credit: CSU & UC
Students will study basic tap dance techniques and elementary tap dances. This course provides students with the opportunity to develop coordination, rhythm, and performance skills. Some history of tap will be included. Requires attendance at selected events offered by Ohlone College at the Gary Soren Smith Center for the Fine and Performing Arts. Repeatable = 3 times (GR)

TD-143B Intermediate Tap
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Advisory: TD-143A
Accepted For Credit: CSU & UC
Students will further develop intricate skills in tap dancing by studying intermediate-level skills and choreography. Repeatable = 3 times (GR)

TD-143C Advanced Tap Dance
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Advisory: This is an advanced-level course; the student is expected to have a strong intermediate-level skill set upon enrollment. Accepted For Credit: CSU & UC
Students will further develop advanced and intricate skills in tap dance by studying advanced rhythm patterns, movements, and choreography with some provision for student composition of dance. Performance skills will be included. Repeatable = 3 times (GR)

TD-144A Introduction to Contemporary Dance
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Accepted For Credit: CSU & UC
Students will learn basic fundamentals of contemporary dance with emphasis on body alignment, strength, coordination, rhythmic movement, and creative expression. Repeatable = 3 times (GR)

TD-144B Intermediate Contemporary Dance
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Advisory: TD-144A
Accepted For Credit: CSU & UC
Students will further prepare their bodies as an instrument for dance, progressing to longer, faster-paced, more diversified, and more difficult movement phrases. Coursework will include some creative dance experiences, abstract dance, and musical mime. Repeatable = 3 times (GR)

TD-145A Dance Ensemble I
27.00 hrs lab
Units: 0.50
Advisory: Concurrent enrollment in an Ohlone Dance class
Accepted For Credit: CSU & UC
Students will be introduced to the art of performance dance in various styles, including jazz, tap, contemporary, and hip hop. Students will be introduced to new choreography with each level that best displays their abilities. (GR)

TD-145B Dance Ensemble II
54.00 hrs lab
Units: 1.00
Advisory: Concurrent enrollment in an Ohlone Dance class
Accepted For Credit: CSU & UC
Students will be introduced to the art of performance dance in various styles, including jazz, tap, contemporary, and hip hop. Students will be introduced to new choreography and perform three to four dances that best display their abilities. (GR)

TD-145C Dance Ensemble III
81.00 hrs lab
Units: 1.50
Advisory: Concurrent enrollment in an Ohlone Dance class
Accepted For Credit: CSU & UC
Students will be introduced to the art of performance dance in various styles, including jazz, tap, contemporary, and hip hop. Students will be introduced to new choreography and perform five to six dances that best display their abilities. (GR)
TD-146L  Open Dance Lab  
36.00 hrs lab  
Units: 0.50  
Accepted For Credit: CSU  
Students will have supervised and tutored studio time to perfect skills and techniques learned in a concurrently enrolled dance class. (GR)

TD-148A2  Introduction to Hip Hop  
36.00 hrs lab  
Units: 0.50  
Accepted For Credit: CSU & UC  
Students learn basic skills of hip hop dance with emphasis on creative expression, strength, coordination, and rhythmic style. (GC)

TD-148A3  Introduction to Hip Hop  
54.00 hrs lab  
Units: 1.00  
Accepted For Credit: CSU & UC  
Students will learn basic skills of contemporary street jazz/hip hop dance with emphasis on body alignment, strength, coordination, rhythmic movement, and creative expression. Repeatable = 3 times (GR)

TD-148B2  Intermediate Hip Hop  
36.00 hrs lab  
Units: 0.50  
Accepted For Credit: CSU & UC  
Students learn, at an intermediate level, skills of hip hop dance with emphasis on creative expression, strength, coordination, rhythmic movement, and creative expression. (GC)

TD-148B3  Intermediate Hip Hop  
54.00 hrs lab  
Units: 1.00  
Prerequisite: TD-148A3  
Accepted For Credit: CSU & UC  
Students will learn, at an intermediate level, skills of contemporary street jazz/hip hop dance with emphasis on body alignment, strength, coordination, rhythmic movement, and creative expression. Repeatable = 3 times (GR)

TD-149A  Choreography for Production I  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU & UC  
Students will learn methods and elements of choreography; relate them to technical theatre elements of set, lighting, costume, and sound; then present their piece with elements of production. (GR)

TD-149B  Choreography for Production II  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Prerequisite: TD-149A  
Accepted For Credit: CSU & UC  
Students will learn methods and elements of choreography; relate them to technical theatre elements of set, lighting, costume, and sound; then present their piece in full production as part of a large-scale, professional-level, dance production. (GR)

TD-150  Technical Theatre  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course introduces the theory and practice of technical theatre production. Emphasis is placed on theatre safety, scenery construction techniques, materials, and backstage procedures. Students receive hands-on training in the scene shop and as members of the stage crew of a department production. (GR) C-ID THTR 171

TD-152  Introduction to Stage Lighting and Sound  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: TD-150  
Accepted For Credit: CSU & UC  
This course introduces the basic concepts, technology, and safe practices of electricity, lighting, and sound for live events. Lectures will focus on theory and practice, while lab will provide opportunities to use equipment in “real life” situations. (GR) C-ID THTR 173

TD-153  Scenic Painting  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: TD-150  
Accepted For Credit: CSU & UC  
This course is a study of various methods of painting theatrical scenery. Tools to be used will include brushes, rollers, sponges, and stencils. Students will learn techniques in faux, trompe-l’oeil, and forced perspective. Students also participate in current department productions. (GR)

TD-154  Theatrical Makeup for Stage, TV, and Dance  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU & UC  
This course includes lecture, demonstration, and laboratory practice in the design and application of stage and film makeup, including ethnic, fantasy, horror, period styles, and special effects. (GR)

TD-155A  Costume Construction I  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course provides basic costume construction techniques to develop a students’ skill in the use of fabrics, methods, and simple patterns in a theatrical context. (GR)

TD-155B  Costume Construction II  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Prerequisite: TD-155A  
Accepted For Credit: CSU & UC  
This course provides costume construction techniques to advance students’ skill in the use of special fabrics, methods, and more complex patterns. (GC)
TD-156 Theatrical Costuming
36.00 hrs lecture, $4.00 hrs lab
Units: 3.00
Advisory: TD-155A
Accepted For Credit: CSU & UC
This course covers the costume design process and the history of costumes. Play analysis, rendering, research, fabrics and their uses, and related topics will be addressed. (GR) C-ID THTR 174

TD-158 Live Event Management
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
This course offers students leadership instruction and practical roles in live event management. Students in this course will learn techniques and practices in production, scheduling, time management, budgeting, and event staffing. There is practical lab application of studies in conjunction with on-campus productions and events. (GC)

TD-159 Theatre Management
36.00 hrs lecture, $4.00 hrs lab
Units: 3.00
Advisory: Eligible for ENGL-151B
Accepted For Credit: CSU
This course is an introduction to the theories and practices of dance, theatre, and music performance management. Students will study advertising, public relations, box office operations, and event staffing. There is practical lab application of studies in conjunction with concurrent productions (student and professional) and/or outside projects in film and TV. (GR)

TD-160A Production Lab
27.00 hrs lab
Units: 0.50
Accepted For Credit: CSU
This lab provides hands-on instruction and practice in technical production for theatre, dance, and television. (GC)

TD-160A2 Production Lab
108.00 hrs lab
Units: 2.00
Accepted For Credit: CSU & UC
This lab provides hands-on instruction and practice in technical production for theatre, dance, and television. (GC)

TD-161 Stagecraft Lab (Theatre, Television, Dance)
$4.00 hrs lab
Units: 1.00
Accepted For Credit: CSU & UC
This course involves participation in all or some of the technical aspects of preparing a scheduled College production (stage, television, and dance), including set construction, lighting, sound, costuming, makeup, stage management, projection, publicity, and house management. (GR)

TD-162 Stagecraft Lab (Theatre, Television, Dance)
108.00 hrs lab
Units: 2.00
Accepted For Credit: CSU & UC
This stagecraft lab involves participation in all of the technical aspects of preparing a scheduled College production (stage, television, and dance), including set construction, lighting, sound, costuming, makeup, stage management, publicity, and house management. (GR)

TD-163 Stagecraft Lab (Theatre, Television, Dance)
162.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This course involves participation in all the technical aspects of preparing a scheduled College production (stage, television, and dance), including set construction, lighting, sound, costuming, makeup, stage management, publicity, and house management. (GR) C-ID THTR 192

TD-164 Stagecraft Lab (Theatre, Television, Dance)
216.00 hrs lab
Units: 4.00
Accepted For Credit: CSU & UC
This course involves participation in all the technical aspects of preparing a scheduled College production (stage, television, and dance), including set construction, lighting, sound, costuming, makeup, stage management, publicity, and house management. (GR) C-ID THTR 192

TD-170 Survey of Entertainment Design
36.00 hrs lecture, $4.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course explores trends in entertainment design and technology through lectures, practicum labs, and field trips. Areas covered will include live performance, film and television; themed entertainment and retail; and corporate events and gaming technologies. This course will provide students a broad overview of the field of Entertainment Design and Technology with emphasis on current and future employment opportunities and the skills needed for them. (GR) C-ID THTR 172

TD-171 3D Entertainment Design for Lighting
36.00 hrs lecture, $4.00 hrs lab
Units: 3.00
Advisory: TD-152
Accepted For Credit: CSU
This course focuses on the fundamentals of computer-aided design as related to lighting design for the entertainment industry. Using Mini-CAD design and drafting programs, this course will guide students through the process of creating lighting designs using three-dimensional models of theatres and other spaces. (GR)

TD-172 Intermediate Lighting for Stage, Video, and Live Events
36.00 hrs lecture, $4.00 hrs lab
Units: 3.00
Advisory: TD-152
Accepted For Credit: CSU
This course offers lecture and project-based instruction on the equipment and techniques used in lighting. Students will learn lighting for stage, video, and live events. This is a hands-on project based course that will give students the opportunity to practice the technologies they learn in a creative and collaborative environment. (GR)

TD-173 Introduction to Moving Lights
18.00 hrs lecture, $4.00 hrs lab
Units: 2.00
Advisory: TD-172
Accepted For Credit: CSU
This course offers an introduction to the technology and applications of intelligent lighting systems for the entertainment industry. The course and lab work will concentrate on the features and functions of a wide variety of lighting fixtures and control systems in use in the entertainment industry today. (GC)
TD-174 Intermediate Moving Lights
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Prerequisite: TD-173
Advisory: TD-172
Accepted For Credit: CSU
This course builds upon the work done in TD-173. Students will learn moving light programming and design techniques for theatre, television, and live events using the latest intelligent lighting control technology. Students will utilize the computer visualization lab for hands-on practice. (GC)

TD-175 Intermediate Sound for Stage, Television, and Live Events
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Advisory: TD-175 and MUS-113
Accepted For Credit: CSU
This course offers project-based instruction on the equipment and techniques used in sound design, recording, and reinforcement. The course is divided into three sections, each of which will focus on a specific area of the entertainment industry: sound for the stage, for television production, and for live events. (GC)

TD-176 Digital Sound Editing for Stage and TV
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Advisory: TD-175 and MUS-113
Accepted For Credit: CSU
This project-based course provides advanced, hands-on instruction in industry-standard digital sound editing, MIDI systems, including Pro Tools, and CueBase. The course is intended for students pursuing careers in audio/technology in the entertainment industry. (GC)

TD-178 Fundamentals of Rigging
36.00 hrs lecture, 36.00 hrs lab
Units: 2.00
Advisory: Ability to climb ladders and lift 40 pounds
This course offers an introduction to the rigging systems and equipment commonly used in the entertainment industry. Through a combination of classroom and lab, students learn the fundamental concepts of safe rigging techniques. (GC)

TD-179 Introduction to Stage Management
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course introduces the responsibilities, techniques, and tools of a modern stage manager for live and broadcast events. Topics covered will include creating schedules, promptbooks, and other paperwork; organizing and managing crew; managing production meetings; managing the rehearsal process; running performances. (GR)

TD-190 Experimental Theatre Ensemble
162.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This course is for students developing and performing in a new play or newly created theatrical production. (GC)

Work Experience Education (WEX)
Division: Business
Academic Dean: Andrew LaManque
Location: Newark campus, Room NC1220
Phone number: 510-742-2301

WEX-185A1 General Work Experience Education
75.00 hrs lab
Units: 1.00
Accepted For Credit: CSU
This course offers students the ability to engage in work-based learning to gain employment experience while enrolled in school. Through a set of learning objectives established by the student, supervisor, and instructor, students shall enhance their career awareness and expand their understanding of the skills required to be successful in the workplace. This experience will promote a better understanding of the relationship between formal education and job success. For each paid internship students must perform 75 hours of work-based learning per credit unit. For each unpaid internship students must perform 60 hours per credit unit. Students may only take a maximum of 16 semester units in Work Experience courses. They also cannot take more than 6 units in one semester of General Work Experience. (GC)

WEX-185A2 General Work Experience Education
150.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
This course offers students the ability to engage in work-based learning to gain employment experience while enrolled in school. Through a set of learning objectives established by the student, supervisor, and instructor, students shall enhance their career awareness and expand their understanding of the skills required to be successful in the workplace. This experience will promote a better understanding of the relationship between formal education and job success. For each paid internship students must perform 75 hours of work-based learning per credit unit. For each unpaid internship students must perform 60 hours per credit unit. Students may only take a maximum of 16 semester units in Work Experience courses and no more than 6 units in one term of General Work Experience. (GC)

WEX-185A3 General Work Experience Education
225.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course offers students the ability to engage in work-based learning to gain employment experience while enrolled in school. Through a set of learning objectives established by the student, supervisor, and instructor, students shall enhance their career awareness and expand their understanding of the skills required to be successful in the workplace. This experience will promote a better understanding of the relationship between formal education and job success. For each paid internship students must perform 75 hours of work-based learning per credit unit. For each unpaid internship students must perform 60 hours per credit unit. Students may only take a maximum of 16 semester units in Work Experience courses and no more than 6 units in one term of General Work Experience. (GC)
### WEX-195A1  Occupational Work Experience Education

- **Units:** 1.00
- **Accepted For Credit:** CSU

This course offers students the ability to engage in work-based learning applied to their major. Through a set of learning objectives established by the student, supervisor, and instructor, students shall enhance their career awareness and expand their understanding of the skills required to be successful in the workplace. This experience will promote a better understanding of the relationship between formal education and job success. For each paid internship students must perform 75 hours of work-based learning per credit unit. For each unpaid internship students must perform 60 hours per credit unit. Students may only take a maximum of 16 semester units in Work Experience courses and no more than 8 units in one term of Occupational Work Experience. (GC)

### WEX-195A2  Occupational Work Experience Education

- **Units:** 2.00
- **Accepted For Credit:** CSU

This course offers students the ability to engage in work-based learning applied to their major. Through a set of learning objectives established by the student, supervisor, and instructor, students shall enhance their career awareness and expand their understanding of the skills required to be successful in the workplace. This experience will promote a better understanding of the relationship between formal education and job success. For each paid internship students must perform 75 hours of work-based learning per credit unit. For each unpaid internship students must perform 60 hours per credit unit. Students may only take a maximum of 16 semester units in Work Experience courses and no more than 8 units in one term of Occupational Work Experience. (GC)

### WEX-195A3  Occupational Work Experience Education

- **Units:** 3.00
- **Accepted For Credit:** CSU

This course offers students the ability to engage in work-based learning applied to their major. Through a set of learning objectives established by the student, supervisor, and instructor, students shall enhance their career awareness and expand their understanding of the skills required to be successful in the workplace. This experience will promote a better understanding of the relationship between formal education and job success. For each paid internship students must perform 75 hours of work-based learning per credit unit. For each unpaid internship students must perform 60 hours per credit unit. Students may only take a maximum of 16 semester units in Work Experience courses and no more than 8 units in one term of Occupational Work Experience. (GC)

### WEX-195A4  Occupational Work Experience Education

- **Units:** 4.00
- **Accepted For Credit:** CSU

This course offers students the ability to engage in work-based learning applied to their major. Through a set of learning objectives established by the student, supervisor, and instructor, students shall enhance their career awareness and expand their understanding of the skills required to be successful in the workplace. This experience will promote a better understanding of the relationship between formal education and job success. For each paid internship students must perform 75 hours of work-based learning per credit unit. For each unpaid internship students must perform 60 hours per credit unit. Students may only take a maximum of 16 semester units in Work Experience courses and no more than 8 units in one term of Occupational Work Experience. (GC)