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 recapitulation of the system identifying the various sub-systems and their relationships. Theories of crime, punishment, ethics, education, and training for professionalism in the system are explored. (GR)

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. Also covered will be classifications of crime and their application to the system of administration of justice. In addition, the course covers legal research, study of case law, methodology, and concepts of law as a social force. C-ID AJ 120 (GR)

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 are studied. Judicial decisions interpreting individual rights and case studies are used to interpret the material. (GR)

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-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)

AJ-108 Introduction to Forensic Anthropology
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: ANTH-108
Advisory: ENGL-151B and ENGL-163
Accepted For Credit: CSU
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-115 Cyber Crime
54.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU
This course will give students background in the history and terminology of computer crimes. The investigation of computer crimes and the forensic processing of seized computer data while safeguarding the constitutional rights of individuals will be examined. (GR)

AJ-116 Criminal Forensics
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
This course covers training of crime laboratory technicians in photography, scientific analysis, identification, and comparison of physical evidence. Emphasis is placed on techniques and tests involved in cases of alcohol and drug intoxication and identification, blood types, fingerprints, ballistics, explosives, ultraviolet techniques, tool marks, and questioned documents. (GR)

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

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

AJ-119 Murder in America
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: PSY-104
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
This course surveys the psychological and criminological aspects of murder in America, including serial killers, mass murderers, and terrorism. (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)

AJ-123 Terrorism
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU
This course examines basic information about the structure and nature of domestic, international terrorism, and the roles of state and local law enforcement in national defense. (GR)

AJ-131 Juvenile Justice
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
This course covers 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. C-ID AJ 220 (GR)

AJ-132 Civil Law
36.00 hrs lecture
Units: 2.00
Advisory: Eligible for ENGL-101A
This course covers the essentials of non-criminal law as it relates to contracts, personal and property rights, torts, marriage and family relations, and the civil action. This course also covers obtaining and enforcing emergency protective restraining orders. (GR)

AJ-135 Drug Enforcement
36.00 hrs lecture
Units: 2.00
Advisory: Eligible for ENGL-101A
This course covers the identification of narcotic and dangerous drugs, the users of drugs and their supply, the law as an agency of drug control, investigation and processing of drug violations, and social solutions to the drug problems. (GR)

AJ-140 POST PC 832 Laws of Arrest
40.00 hrs lecture
Units: 2.00
This course is POST certified as 40 hours PC 832 Laws of Arrest for code enforcement vocations. This course covers professionalism for code enforcement officers, basic legal concepts, the laws of evidence, investigative techniques, unarmed defense, and handcuffing techniques. The course is principally directed at individuals who deal with members of the general public in their regular occupation and who can be expected to enforce code violations by issuing citations, if necessary. (CR)

AJ-141 POST PC 832 Basic Firearms Qualification
10.00 hrs lecture, 14.00 hrs lab
Units: 1.00
Prerequisite: Students must pass a background fingerprint check through the California Department of Justice at their own expense. The clearance letter must be provided to the Coordinator before entrance to the firing range. This requirement is California State Law.
This course is the basic POST (Police Officer Standards and Training) certified 24-hour firearms training with qualification certificate upon completion. Successful completion of this course will allow the student to enter any enforcement type vocation, for instance, code inspectors, such as park rangers, building inspectors, animal control officers, community service officers, probation officers, security officers, or firefighters anywhere in the State of California. (CR)

AJ-144 Leadership Skills Development
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
This course is designed to teach basics of police supervision including historical perspectives, purposes and principles of organizations, the operating principal, art and style of leadership, human resources management, and the future of police supervision. (GR)
AJ-235  11550 H & S Drug Identification and Influence
24.00 hrs lecture
Units: 0.50
This course is designed for the uniformed law enforcement officer or narcotic investigator. The purpose of this course is to familiarize the officer with the most commonly abused controlled substances, their methods of acquisition and abuse, as well as articulating the signs and symptoms of persons under the influence of these substances. This course will also acquaint the officer with the Health & Safety Code laws used in narcotic enforcement. Repeatable = 5 times (CR)

AJ-237  Field Training Officer
28.00 hrs lecture, 12.00 hrs lab
Units: 1.00
Prerequisite: Course is designed for existing police officers.
Advisory: POST approved pre-entry English skills; assessment exam provided by Academy.
This course is primarily designed for police officers that have been or will be accepted into field training officer programs in their respective 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. Repeatable = 5 times (CR)

AJ-240  Advanced Officer Training
20.00 hrs lecture
Units: 0.50
Prerequisite: Graduation from a California Police Academy, Correctional Academy, Probation Academy, or Fire Academy
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. Repeatable = 5 times (CR)

AJ-240A  Advanced Officer Training
20.00 hrs lecture
Units: 0.50
Prerequisite: Graduation from a California Police Academy, Correctional Academy, Probation Academy, or Fire Academy
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. Repeatable = 5 times (CR)

AJ-240A1  Advanced Officer Training
40.00 hrs lecture
Units: 1.00
Prerequisite: Graduation from a California Police Academy, Correctional Academy, Probation Academy, or Fire Academy
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. Repeatable = 5 times (CR)

AJ-242  Police Supervisor
76.00 hrs lecture, 4.00 hrs lab
Units: 2.00
Prerequisite: Course is designed for existing police officers
Advisory: POST approved pre-entry English skills assessment exam provided by Academy
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. Repeatable = 5 times (CR)

AJ-245  City Police Academy
0.50 hrs lecture
Units: 0.50
The purpose of the Citizens 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. Repeatable = 5 times (CR)

AJ-245A1  Citizen Police Academy
50.00 hrs lecture
Units: 1.00
The purpose of the Citizens 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. Repeatable = 5 times (CR)
AJ-246 Field Training Program
5.00 hrs lecture
Units: 5.00
Prerequisite: POST certified as a California Peace Officer
This course is certified by Peace Officers Standards and Training (POST). The field Training Program designed to provide a training continuum which integrates the acquired knowledge and skill from the Regular Basic Police Academy with the practical application of law enforcement services. 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. Students will be assigned in a patrol car, one-on-one with a certified Field Training Officer. Repeatable = 5 times (CR)

AJ-246A10 Law Enforcement Field Training Program
800.00 hrs lab
Units: 10.00
Prerequisite: POST certified as a California Peace Officer
This course is a program 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. Repeatable = 5 times (GR)

AJ-246A15 Law Enforcement Field Training Program
140.00 hrs lab
Units: 1.50
Prerequisite: POST certified as a California Peace Officer
This course is a program 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. Repeatable = 5 times (CR)

AJ-246A25 Law Enforcement Field Training Program
80.00 hrs lecture, 40.00 hrs lab
Units: 2.50
This course is designed for Field Training Program supervisors and/or managers. It emphasizes techniques for the proper selection, training, and supervision of FTO’s. It meets the training requirements for effective management of the Field Training Program required by California Commission on Peace Officers Standards and Training (POST). Repeatable = 5 times (CR)

AJ-246A35 Law Enforcement Field Training Program
280.00 hrs lab
Units: 3.50
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, 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. Repeatable = 5 times (GR)

AJ-246A55 Field Training Program – SAC
440.00 hrs lab
Units: 5.50
This course is designed for Field Training Program supervisors and/or managers. It emphasizes techniques for the proper selection, training, and supervision of FTO’s. It meets the training requirements for effective management of the Field Training Program required by California Commission on Peace Officers Standards and Training (POST). Repeatable = 5 times (CR)

AJ-246A6 Law Enforcement Field Training Program
480.00 hrs lab
Units: 6.00
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. Repeatable = 5 times (GR)

AJ-246A65 Law Enforcement Field Training Program
520.00 hrs lab
Units: 6.50
Prerequisite: POST certified as a California Peace Officer
This course is part of a program 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. Repeatable = 5 times (GR)

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Did you know?

Three out of every 10 Californians ages 18-24 are currently enrolled in a community college.
Source: California Community Colleges Chancellor’s Office

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AJ-246A7  Law Enforcement Field Training Program  
560.00 hrs lab  
Units: 7.00  
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. Repeatable = 5 times (CR)

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. Repeatable = 5 times (CR)

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. Repeatable = 5 times (CR)

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. Repeatable = 5 times (CR)

AJ-247  Field Training Officer – Update  
24.00 hrs lecture  
Units: 0.50  
Advisory: Field Training Officers employed with a law enforcement agency  
This course is designed to update Field Training Officers in the following areas: evaluation, legal aspects, Commission on Peace Officers Standards, and Training changes. Repeatable = 5 times (CR)

AJ-248  Instructor Development Techniques  
32.00 hrs lecture, 8.00 hrs lab  
Units: 1.00  
This course is designed to train public safety instructors in various training methods. The course focuses on principles of learning, the police officer as an adult learner, determining training needs, and defining instructional objectives. The student will become familiar with effective communication and teaching strategies and have presentations using lesson plans, visual support materials, and contemporary teaching techniques. Repeatable = 5 times (CR)

AJ-249  PC-832 – Firearms  
8.00 hrs lecture, 16.00 hrs lab  
Units: 0.50  
This course is designed for public safety personnel attending annual updates, re-certification, or remediation mandated by the Commission on Peace Officer Standards and Training. Course covers the legal requirements for carrying and using a firearm within the scope of their job related duties. Participants are instructed in the safe handling of firearms and techniques of shooting. Repeatable = 5 times (CR)

AJ-251  Basic Fingerprint  
8.00 hrs lecture, 32.00 hrs lab  
Units: 1.00  
Advisory: AJ-220 or AJ-234  
An introduction to fingerprints, including the history, identification, classification and filing, courtroom testimony, and practical application. Repeatable = 5 times (CR)

AJ-253A  Homicide Investigation  
19.80 hrs lecture  
Units: 0.50  
Advisory: AJ-220 or possess POST basic training certificate to qualify for Peace Officer status  
This is a course to train investigators in the highly specialized field of Homicide Investigation. It will cover the legal aspects of death investigation, homicide crime scene procedures, autopsy, psychological profiling, criminal psychology, laboratory work, gunshots, asphyxia, drowning, burning, cutting, stabbing, and interviewing techniques. Repeatable = 5 times (CR)

AJ-254  Police Supervisor – Update  
20.00 hrs lecture, 4.00 hrs lab  
Units: 0.50  
Advisory: AJ-220 or possess POST basic training certificate to qualify for Peace Officer status  
This course is designed for updating first-line field supervisors in areas including liability issues, ethics, communication, counseling skills, and handling critical incidents. Repeatable = 5 times (CR)

AJ-255  Search Warrant Investigator  
15.00 hrs lecture, 9.00 hrs lab  
Units: 0.50  
Advisory: AJ-220 or possess POST basic training certificate to qualify for Peace Officer status  
This course will cover the search warrant law and procedure; knock notice, affidavit preparation, problems of search warrant preparation, the actual preparation of a search warrant by each participant, knock and talk. In addition, the course will provide the knowledge, skills, and tactics necessary to properly serve and execute a search warrant effectively and safely. The student will develop a sound operational plan for the execution of a search warrant. Repeatable = 5 times (CR)
AJ-257  **Special Weapons and Tactics (SWAT)**  
16.00 hrs lecture, 24.00 hrs lab  
Units: 1.00  
Prerequisite: Possess POST basic training certificate to qualify for Peace Officer status  
This course meets the training requirements of the California Commission on Peace Officer Standard and Training (POST). It is designed to prepare law enforcement officers for the demands of departmental special teams (e.g. SWAT, SRT, ERT, MERGE). The course will include qualification courses of firearms and tactical combat shooting. Repeatable = 5 times (CR)

AJ-258  **Street Gang Training**  
24.00 hrs lecture  
Units: 0.50  
Advisory: AJ-220 or possess POST basic training certificate to qualify for Peace Officer status  
This course is directed from a regional point of view to assist law enforcement personnel in the identification and investigative techniques involved in gang activity and prosecution. The material presented is consistent with other information on gang activity throughout the state. The instructors are subject matter experts who meet with others to address gang problem in the region. Repeatable = 5 times (CR)

AJ-260  **Skills and Knowledge Modular Training**  
40.00 hrs lecture, 120.00 hrs lab  
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 classes 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. Repeatable = 5 times (CR)

AJ-260A1  **Skills and Knowledge Modular Training**  
16.00 hrs lecture, 16.00 hrs lab  
Units: 1.00  
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 classes 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. Repeatable = 5 times (CR)

AJ-260A2  **Lateral Academy**  
1800 hrs lecture  
Units: 2.00  
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 classes 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. Repeatable = 5 times (CR)

AJ-260A3  **Lateral Academy**  
72.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
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 classes 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. Repeatable = 5 times (CR)

AJ-260A4  **Skills and Knowledge Modular Training**  
99.00 hrs lecture, 72.00 hrs lab  
Units: 4.00  
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 classes 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. Repeatable = 5 times (CR)

AJ-260A5  **Lateral Academy**  
90.00 hrs lecture  
Units: 5.00  
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 classes 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. Repeatable = 5 times (CR)
AJ-261  
**Skills and Knowledge Modular Training**  
40.00 hrs lecture  
Units: 1.00  
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 classes 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. Repeatable = 5 times (CR)

AJ-262  
**Skills and Knowledge Modular Training**  
80.00 hrs lecture  
Units: 2.00  
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 classes 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. Repeatable = 5 times (CR)

AJ-274A  
**Bicycle Patrol**  
7.50 hrs lecture, 16.50 hrs lab  
Units: 0.50  
Advisory: POST Basic Certificate  
This course is designed to give students basic knowledge of the use of the bicycle in police patrol, and improve their bicycle riding skills. The course will cover topics dealing with physical fitness, maintenance, subject/suspect contact, off-road bicycle handling skills, and the history of the bicycle. Repeatable = 5 times (CR)

AJ-276  
**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. Repeatable = 5 times (CR)

AJ-277  
**Radar Training**  
20.00 hrs lecture, 4.00 hrs lab  
Units: 0.50  
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. It provides information on Radar operations, enforcement principles of stationary, moving RADAR/LIDAR exercises, and case law. Repeatable = 5 times (CR)

**AIR FORCE (AF)**

AF-101A  
**Foundations of the U.S. Air Force**  
22.50 hrs lecture, 36.00 hrs lab  
Units: 1.00  
Accepted For Credit: CSU  
Today’s Air Force officer and the Air Force as a whole. (GR)

AF-101B  
**Foundations of the U.S. Air Force**  
18.00 hrs lecture, 18.00 hrs lab  
Units: 1.00  
Accepted For Credit: CSU  
Today’s Air Force officer and the Air Force as a whole. (GR)

AF-102A  
**The Evolution of the U.S. Air Force**  
22.50 hrs lecture, 36.00 hrs lab  
Units: 1.00  
Accepted For Credit: CSU  
Introduction to ethics, values, leadership and leadership problems, and communication skills. (GR)

AF-102B  
**Evolution of the U.S. Air Force**  
Air and Space Power  
36.00 hrs lecture  
Units: 2.00  
Accepted For Credit: CSU  
Introduction to ethics, values, leadership and leadership problems, and communication skills. (GR)

**ALLIED HEALTH (AH)**

AH-110  
**Medical Terminology**  
72.00 hrs lecture  
Units: 4.00  
Advisory: ESL-150, ESL-151, ESL-184RW  
Accepted For Credit: CSU  
This course is an introduction to medication terminology as used in the health professions. It provides opportunities for practical application of medical terminology and further development of skill in analyzing components of medical terms and building a medical vocabulary applicable to specialties of medicine. Course content includes anatomical and physiological terminology: basic structure, prefixes, suffixes; combining forms; abbreviations, clinical procedures, laboratory and diagnostic tests related to each body system. (GR)
AH-151 Applied Clinical Pharmacology
36.00 hrs lecture
Units: 2.00
Accepted For Credit: CSU
This course provides the respiratory therapist and nursing student or practitioner with a working knowledge of drug therapy in current use with acutely ill patients. (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 grammar and is a further study of the Deaf community and Deaf culture. This course is recommended for students who have completed ASL-101A and desire to further study and review before taking ASL-102A. Students are expected to attend outside events at their own expense. (GR)

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/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-101B4 Principles of American Sign Language I
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: ASL-101A4 or ASL-101A
Accepted For Credit: CSU
This course is an enhanced and expanded Level I study of the fundamentals of American Sign Language grammar and is a further study of the Deaf community and Deaf culture. This course is recommended for students who have completed ASL-101A and desire to further study and review before taking ASL-102A. Students are expected to attend outside 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 or ASL-101B
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. Students are expected to attend outside events at their own expense. (GR)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL-102A</td>
<td>Principles of American Sign Language II</td>
<td>54.00 lecture, 54.00 lab</td>
<td>5.00</td>
<td>ASL-101A or ASL-101B</td>
<td>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/Deaf Studies and students wishing to enter the Interpreter Preparation Program. (GR)</td>
</tr>
<tr>
<td>ASL-102B</td>
<td>Principles of American Sign Language II</td>
<td>90.00 lecture, 18.00 lab</td>
<td>5.00</td>
<td>ASL-102A</td>
<td>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 have completed ASL-102A and desire further study and review. Students are expected to attend outside events at their own expense. (GR)</td>
</tr>
<tr>
<td>ASL-103A</td>
<td>Principles of American Sign Language III</td>
<td>90.00 lecture, 18.00 lab</td>
<td>5.00</td>
<td>ASL-102A or ASL-102B</td>
<td>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)</td>
</tr>
<tr>
<td>ASL-103A4</td>
<td>Principles of American Sign Language III</td>
<td>54.00 lecture, 54.00 lab</td>
<td>4.00</td>
<td>ASL-102A or ASL-102B</td>
<td>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. It is required for students majoring in American Sign Language/Deaf Studies and students wishing to enter the Interpreter Preparation Program. Students are expected to attend outside events at their own expense. (GR)</td>
</tr>
<tr>
<td>ASL-103B</td>
<td>Principles of American Sign Language III</td>
<td>90.00 lecture, 18.00 lab</td>
<td>5.00</td>
<td>ASL-103A</td>
<td>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 events at their own expense. (GR)</td>
</tr>
<tr>
<td>ASL-104A</td>
<td>Principles of American Sign Language IV</td>
<td>90.00 lecture, 18.00 lab</td>
<td>5.00</td>
<td>ASL-103A or ASL-103B</td>
<td>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. The course is for students who have completed ASL-103A or ASL-103B. Students are expected to attend outside events at their own expense. (GR)</td>
</tr>
<tr>
<td>ASL-104B</td>
<td>Principles of American Sign Language IV</td>
<td>90.00 lecture, 18.00 lab</td>
<td>5.00</td>
<td>ASL-104A</td>
<td>This course is an enhanced and expanded Level IV 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 finished ASL-104A and desire further study and review. Students are expected to attend outside events at their own expense. (GR)</td>
</tr>
<tr>
<td>ASL-140</td>
<td>Deaf Education</td>
<td>54.00 lecture</td>
<td>3.00</td>
<td>Completion of, or concurrent enrollment in, ASL-101A or ASL-101B</td>
<td>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. The course analyzes the impact of Deaf education on hearing families. In addition, it provides an orientation to problems, issues, research, legislation, and current trends in the field of education of the Deaf. (GR)</td>
</tr>
<tr>
<td>ASL-142</td>
<td>Deaf Culture</td>
<td>54.00 lecture</td>
<td>3.00</td>
<td>Completion of, or concurrent enrollment in, ASL-101A or ASL-101B</td>
<td>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, behavior characteristics of the oppressed, and oppressor people and the liberation movements. Analysis of the relationship ASL to the history of American Deaf community will be conducted. (GR)</td>
</tr>
<tr>
<td>ASL-145</td>
<td>Deaf History</td>
<td>54.00 lecture</td>
<td>3.00</td>
<td>ASL-101A or ASL-101B</td>
<td>This course is an in-depth study of noted Deaf persons, Deaf contributions to education and job markets, Deaf heritage, international Deaf history, history of California School of the Deaf-Fremont, and history of Bay Area Deaf organizations. (GR)</td>
</tr>
</tbody>
</table>
**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. It is recommended for advanced students majoring in American Sign Language and Deaf Studies or 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 or ASL-102B
This course is designed to provide students with receptive and expressive knowledge of over 5,000 signs and commonly used phrases. Regional variations of signs will be studied. Conceptual accuracy is emphasized. Students will be able to correctly sign English into ASL and be able to translate ASL into English. This course is recommended for advanced students majoring in American Sign Language, Deaf Studies Program, and/or Interpreter Preparation. (GC)

**ASL-155 ASL Literature (Folklore)**
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. Two ASL stories will be studied in depth and analyzed from a variety of perspectives. Taught in ASL only. (GR)

**ASL-156 Advanced Reception of ASL**
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL-102A or ASL-102B
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 programs. (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, and pantomime. 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-160 American Sign Language Field Work**
54.00 hrs lab
Units: 1.00
Prerequisite: ASL-101A or ASL-101B
This course offers direct experience signing 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
This course offers direct experience signing in formal and/or informal conversational settings or projects involving knowledge of ASL and deafness. (GR)

**ASL-181A Conversational ASL I**
54.00 hrs lecture
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. (GC)

**ASL-181B Conversational ASL II**
54.00 hrs lecture
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. It is designed to provide intermediate conversational skill in the use of ASL. Students are expected to attend outside events at their own expense. (GC)

**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)

**ASL-190A Workshop in Beginning ASL I**
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL-101A or ASL-101B
This course is a Beginning Level I basic workshop for students covering selected topics in the area of American Sign Language (ASL), Deaf Education, and Deaf Culture. The theme and content of each workshop varies and is determined by American Sign Language/Deaf Studies instructors and focused to meet the needs of the workshop participants. (CR)

**ASL-190B Workshop in Beginning ASL II**
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL-101A
This course is a Beginning Level II workshop for students covering selected topics in the area of American Sign Language (ASL), Deaf Education, and Deaf Culture. The theme and content for each workshop varies and is determined by American Sign Language/Deaf Studies instructors. (CR)
ASL-190C  Workshop in Beginning ASL III
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ASL-190B  
This course is an Advanced Beginning Level III workshop for students covering selected topics in the area of American Sign Language (ASL), Deaf Education, and Deaf Culture. The theme and content of each workshop varies and is determined by the American Sign Language/Deaf Studies instructors and focused to meet the needs of the workshop participants. (CR)

ASL-191A  Workshop in Intermediate ASL I
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ASL-190C  
This course is an Intermediate Level ASL workshop for students covering selected topics in the area of American Sign Language (ASL), Deaf Education, and Deaf Culture. The theme and content of each workshop varies and is determined by American Sign Language/Deaf Studies instructors. (CR)

ASL-191B  Workshop in Intermediate ASL II
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ASL-191A  
This course is a Level II Intermediate workshop for students covering selected topics in the area of American Sign Language (ASL), Deaf Education, and Deaf Culture. The theme and content of each workshop varies and is determined by American Sign Language/Deaf Studies instructors. (CR)

ASL-191C  Workshop in Intermediate ASL III
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ASL-191B  
This course is a Level III Intermediate workshop for students covering selected topics in the area of ASL and Deaf Studies. The theme and content of each workshop varies and is determined by American Sign Language/Deaf Studies instructors. (CR)

ANTH-101  Physical Anthropology
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course 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, and contemporary issues. (GC)

ANTH-102  Cultural Anthropology
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course deals with the study of human society with reference to the development and change of culture. An emphasis will be placed on cultural adaptations and change. C-ID ANTH 150 (GC)

ANTH-103  Introduction to Archaeology
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU  
This course introduces the subject of archaeology through the study of concepts, theories, and methods employed by archaeologists to reconstruct past life ways. Topics include the nature of scientific inquiry and archaeological research; field methods; data acquisition, analysis, and interpretation; cultural resource management, professional ethics, and an examination of cultural adaptations and change. C-ID ANTH 150 (GC)

ANTH-104  Survey of North American Indian Cultures
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course deals with the methods of scientific excavation implementing the techniques of a field archeologist. Emphasis will be on the scientific method as it relates to excavation, classifying, cataloging, preservation of past human cultures under supervised field, and laboratory conditions. (GC)
ANTH-106  Magic, Witchcraft, and Religion
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-151B and ENGL-163
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 will analyze the functions of religious beliefs and the varied expressions of religion through ritual behaviors, use of magic, cures, 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
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU
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, nonverbal communication, emphasizing the relationship between language and culture, and issues of language conservation and language loss. (GC)

ANTH-108  Introduction to Forensic Anthropology
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: AJ-108
Advisory: ENGL-151B and ENGL-163
Accepted For Credit: CSU
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)

ARABIC (ARBC)

Division: Language and Communication
Dean: Mark Lieu
Executive Assistant: Kathleen Martinez
Location: Fremont campus, Room HH-227
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)

ARMY ROTC (ARMY)

Division: Arts and Social Sciences
Dean: Walter Birkedahl
Executive Assistant: Sheila Holland
Location: Fremont campus, Smith Center, Room 147
Phone number: (510) 659-6216

ARMY-101A  Leadership
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course introduces cadets to the personal challenges and competencies that are critical for effective leadership. Cadets learn how the personal development of life skills such as critical thinking, goal setting, time management, and physical/mental fitness (resiliency training) relate to leadership, officership, and the Army profession. (GR)

ARMY-101B  Introduction to Tactical Leadership
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course is an overview of leadership fundamentals such as setting direction, problem-solving, listening, presenting briefs, providing feedback, and using effective writing skills. Students explore dimensions of leadership attributes and core leader competencies in the context of practical, hands-on, and interactive exercises. Class activities will focus on map-reading, squad and platoon operations, military symbols, and applicable current events. (GR)

ARMY-102A  Innovative Team Leadership
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of the Army leadership framework (trait and behavior theories). Cadets practice aspects of personal motivation and team building in the context of planning, executing, and assessing team exercises and participating in leadership labs. (GR)

ARMY-102B  Foundations of Tactical Leadership
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course examines the challenges of leading tactical teams in the operational environment. The course highlights dimensions of terrain analysis, patrolling, and operation orders. Further study of the theoretical basis of the Army Leadership Requirements Model explores the dynamics of adaptive leadership in the context of military operations. (GR)
ART (ART)

Division: Arts and Social Sciences
Dean: Walter Birkedahl
Executive Assistant: Sheila Holland
Location: Fremont campus, Smith Center, Room 147
Phone number: (510) 659-6216

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
This course, through discussion, historical review, and contemporary issues, is designed to increase students’ 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: painting, sculpture, architecture, and film. The student will be introduced to the various functions of art in our society. The desired outcome is a more critical observer. Requires attendance at selected events offered by Ohlone College at the Gary Soren Smith Center for the Fine and Performing Arts. (GC)

ART-103A Survey of World Art History – Prehistoric Through 1300 C.E.
72.00 hrs lecture
Units: 4.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course is a survey of the history of sculpture, architecture, and visual arts throughout the world prior to 1300 CE. The civilizations, regions, and cultures studied are Mesopotamia, Egypt, Ancient Greece and Rome, Early Christian, Islam, African, Pre-Columbian, Asia, and the art of the Americas. (GC)

ART-103B Survey of World Art History – 14th Century Through 20th Century
72.00 hrs lecture
Units: 4.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course is a survey of the history of sculpture, architecture, and visual arts throughout the world after 1300 CE. The civilizations, regions, and cultures studied are Europe, Africa, Asia, and the Americas. (GC)

ART-103C Survey of Non-European Art
72.00 hrs lecture
Units: 4.00
Advisory: ENGL-101B or ENGL-101C
Accepted For Credit: CSU
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 course will introduce the beginning student to the techniques and concepts related to the organization of two-dimensional imagery. Studio work will include pen, ink, collage, painting, drawing, and bookmaking. (GC)

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 a continuation of ART-104A. A major emphasis in this course will be on the principles of three-dimensional form. C-ID ARTS 101 (GC)

ART-104C Color
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This course will introduce the beginning student to various theories of color, hands-on experience in mixing colors, and practical observation in color relationships and effects. The quality of color will be explored through hue, value, and saturation. (GC)

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 3-dimensional glass, using advanced techniques in kiln forming, casting, abrasive blasting, lamination, and coldworking. (GC)

ART-106A Descriptive Drawing
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This is a basic drawing course designed to teach fundamental drawing skills and techniques. Direct observation, composition, and methods of expressing subject matter as well as the use of charcoal, pencil, ink, and pastel will be emphasized. C-ID ARTS 110 (GC)
ART-106B Intermediate Descriptive Drawing
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-106A
Accepted For Credit: CSU & UC
This course involves a continued exploration of drawing concepts focusing on creative expression and composition. The course emphasizes developing a sustainable studio practice using a variety of methods and materials. C-ID ARTS 205 (GC)

ART-107A Life Drawing
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-106A
Accepted For Credit: CSU & UC
This course involves drawing the human figure from both an anatomical and intuitively observational method. Media used include charcoal, graphite, ink, water color, and oil wash. (GC)

ART-107B Life Drawing
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-107A
Accepted For Credit: CSU & UC
This course is a continuation of the work and methodology of ART-107A, but with an emphasis on expressive interpretation in drawing the human figure, and the use of color. (GC)

ART-108 Perspective Drawing
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-106A
Accepted For Credit: CSU & UC
This is a practical course in the techniques and principles of drawing in one and two point freehand and constructed perspective with an emphasis on drawing interiors and furniture. (GC)

ART-109A Beginning Graphic Design I (Letter Forms and Typography)
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Cross-referenced Course: GA-109A
Advisory: ART-104A
Accepted For Credit: CSU
This course is an introduction to graphic design. It will cover the fundamentals of letter form design with traditional and contemporary alphabets. Studio practice will emphasize the relationships between image and message. (GC)

ART-109B 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 the pictorial image and written word as basic components in a format for communications. The studio practice develops student's ability to formulate and communicate a concept into graphic form for both presentation and production. (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 course. The emphasis is on students' problem-solving ability. It includes comprehensive projects in applied graphics and three-dimensional design. There is instruction in techniques for package design, product visualization, and execution of 3-D design prototypes for presentation and photography. (GC)

ART-110B Advanced Graphic Design II
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Cross-referenced Course: GA-110B
Prerequisite: ART-110A or GA-110A
Accepted For Credit: CSU
This course gives advanced attention to design solution and presentation. The course deals with the development of a single all-inclusive graphic design project. The emphasis is on effective client relationship from concept development through assignment completion. (GC)

ART-111A Painting – Color and Composition
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 in studio painting practices designed to involve the student 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 will be included in the instruction. C-ID ARTS 210 (GC)

ART-111B Painting
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 and content of subject matter. Techniques in painting with a student choice of media will be further explored. (GC)

ART-112 Watercolor
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-106A
Accepted For Credit: CSU & UC
This course concentrates on water-based media including transparent watercolor, dyes, gouache, and tempera. Brush techniques and investigation of various papers will be included. (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-119A  3-Dimensional Studio Lab
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course is a lab component of all three-dimensional studio classes in the Art Department. Students will produce portfolio projects in clay, glass, or other sculptural materials. (GR)

ART-120A  Ceramic Studio Development and Maintenance I
36.00 hrs lecture, 72.00 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, slip mixer, airbrush, spray booth, compressor, glaze materials, and ceramic library. (GR)

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 on giving 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 gallery. (GC)

ART-122A  Ceramic Throwing I
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-121B
Accepted For Credit: CSU & UC
The course emphasis is on the designing, throwing, and glazing of more complex and difficult forms, including lidded containers, closed shapes, thin-necked bottles, and teapot sets. (GC)

ART-116A  Sculpture and Beyond
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-116B
Accepted For Credit: CSU
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 and investigation of the local art scene will be emphasized. (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 and investigation of the local art scene will be emphasized. (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-120B  Ceramic Studio Development and Maintenance II
54.00 hrs lab
Units: 1.00
Prerequisite: ART-121B
Accepted For Credit: CSU
This course is a continuation of ART-120A. 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. In addition, the students will train 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 wheel-thrown and hand-constructed clay forms. This is a survey of clay and glaze materials and their ceramic applications. It includes firing of high temperature and low temperature stoneware and porcelain clays, including Raku and burnishing. (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
This course is a continuation of ART-121A. The emphasis is on wheel throwing, advanced handbuilding, glaze application, and understanding the loading and firing of bisque kilns. (GC)

ART-122B  Ceramic Throwing II
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-121B
Accepted For Credit: CSU & UC
This course is a continuation of ART-122A. The emphasis is on designing, throwing, glazing, and firing advanced thrown and hand-built forms. This 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 will also emphasize appropriate glazes for particular forms. (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, marbling, commercial underglazes, raw oxides, and overglazes. (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. The student will 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 the early 19th century to the present day. (GC)

ART-127A Site-Specific and Art Installation I
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
The major emphasis for this introductory lecture/studio course is indoor and outdoor installation using the principles of two and three-dimensional forms. (GC)

ART-133A Black and White Photography
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This course covers the fundamental processes of photography including camera mechanics, film exposure, optics, composition, and darkroom skills required to produce quality continuous tone black and white prints. Course will include an overview of historic and contemporary photography. A camera with manual controls is required. (GC)

ART-133B Intermediate Black and White Photography
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-133A
Accepted For Credit: CSU
This is a darkroom course in black and white photography. Students refine their use of light sensitive materials and gain hands-on experience with alternative photographic processes. This course affords the opportunity for students to emphasize creativity and artistic style. (GC)

ART-133C Advanced Black and White Photography
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-133B
Accepted For Credit: CSU & UC
This is a darkroom course in black and white photography. Students learn about camera exposure as it relates to print controls. The course spends time on previsualization techniques and affords the opportunity for students to emphasize creativity and artistic style. Students work independently on photography projects of their own design. (GC)

ART-133L Photography Studio Lab
27.00 hrs lab
Units: 0.50
Corequisite: ART-133A, ART-133B, and/or ART-133C
Accepted For Credit: CSU
This course is a lab component of all film-based black and white photography classes in the Art Department. Students will work on photographic portfolio projects. (CR)

ART-138A Beginning Photoshop
27.00 hrs lecture, 81.00 hrs lab
Units: 3.00
Cross-referenced Course: GA-138A
Accepted For Credit: CSU & UC
This course is for photographers with limited experience or new to Adobe Photoshop. Students learn how to work with a digital "darkroom" using images supplied by the instructor for this purpose. Topics include image file management, organization, file formats, resolution, basic image editing, selective image editing, scanning, preparing images for web-based application, how to purchase a digital camera, and more. A digital camera is not required. (GC)

ART-138B Intermediate Photoshop
27.00 hrs lecture, 81.00 hrs lab
Units: 3.00
Cross-referenced Course: GA-138A
Prerequisite: ART-138A or GA-138A
Accepted For Credit: CSU
This course is for photographers wishing to increase their working knowledge of Adobe Photoshop. Students work with a digital "darkroom" using original images as well as images supplied by the instructor. Topics included are working with layers and masks, opacity and blend modes, transforming, working with text, camera raw, actions, smart filters, print, and web-based workflow. A digital camera is not required. (GC)

ART-139A Beginning Digital Photography
18.00 hrs lecture, 108.00 hrs lab
Units: 3.00
Cross-referenced Course: GA-169A
Advisory: ART-138A and ENGL-151A
Accepted For Credit: CSU & UC
This course explores 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; 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 will include camera functions, resizing and saving digital files, and minor image modification. For intense technical instruction see ART-138A and ART-138B. Students should consider completing ART-138A prior to enrolling in this course, but it is not a requirement. (GC)
ART-146  Photography/Graphic Arts Newspaper Staff
18.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Cross-referenced Course: JOUR-146
Advisory: ART-106A or ART-133A
Accepted For Credit: CSU
Staff members initiate, plan, and complete photographic or graphic art 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 Macintosh computers, scanners, and PhotoShop for completion of assignments. Students are also introduced to legal and ethical responsibilities. ART-146 students are expected to produce two photos or graphics per issue. (GC)

ART-147  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 art 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 Macintosh computers, scanners, and PhotoShop for completion of assignments. Students are also introduced to legal and ethical responsibilities. ART-147 students are expected to produce two photos or graphics per issue. (GC)

ART-148  Photography/Graphic Arts Newspaper Staff
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Cross-referenced Course: JOUR-148
Advisory: ART-106A or ART-133A
Accepted For Credit: CSU
Staff members initiate, plan, and complete photographic or graphic art 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, Macintosh computers, scanners, and PhotoShop for completion of assignments. Students are also introduced to legal and ethical responsibilities. ART-148 students are expected to produce three photos or graphics per issue. This course is usually reserved for managers and editors. (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, and 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. Interior design theories and methodologies are explored in depth through case studies emphasizing the design of public space. (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 current 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
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 class 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
Units: 3.00
Cross-referenced Course: ID-157
This course introduces basic business practices for interior designers. It also includes an overview of career paths, business planning, organization, professional associations, marketing, sales, wholesale resource development, contractual obligations, and ethics. It is 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: 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)

ART-159A  Applied Design: Residential Lighting
18.00 hrs lecture
Units: 1.00
Cross-referenced Course: ID-159A
Accepted For Credit: CSU
This seminar will present an overview of basic considerations necessary to plan, choose, and place lighting fixtures throughout a home to help 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 seminar explores 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 microcomputers and to the creation of computer-generated graphics. This course examines the variety of software/hardware tools and techniques available for the production of computer-made imagery. The emphasis is on hard-copy production using printers, plotters, and other reproduction methods. This course also covers design principles, business graphics, and elementary programming principles. (GC)

ART-160B  Computer Graphics II
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Cross-referenced Course: GA-160B
Prerequisite: ART-160A or GA-160A
Accepted For Credit: CSU
This course is a continuation of ART-160A. The emphasis in this course is on developing intermediate and advanced skills needed to operate a computer graphics work station. The students complete projects of their choice using more complex Paint and CAD software, printers, and plotters. (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 is an overview of computer graphics on desktop computers for graphic designers, artists, typographers, and for business applications. This course will cover hardware and software including laser printers, ink jet printers, scanners, tablets, and bit-mapped and vector-based graphics programs. This course also covers design principles and business graphics. The course emphasis is on the creation of a portfolio of computer graphics drawings. (GC)

ART-161B  Digital Graphics II
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Cross-referenced Course: GA-161B
Prerequisite: ART-161A or GA-161A
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
Dean: Mike Holtzclaw
Executive Assistant: Irene Benavidez
Location: Fremont campus, Room 8203
Phone number: (510) 659-6191

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 the student with an introduction to the history, principles, methods, and fundamentals of astronomy. (GR)

ASTR-101B  General Astronomy Beyond the Solar System
54.00 hrs lecture
Units: 3.00
Advisory: ASTR-102
Accepted For Credit: CSU & UC
This course is an introduction to the fundamental principles and the 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 and Athletics
Dean: Christopher Warden
Executive Assistant: Laura Martinez
Location: Fremont campus, Room 9303
Phone number: (510) 659-6044

ATHL-101A  Functional Sports Performance
36.00 hrs lab
Units: 0.50
Advisory: 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 they relate 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-110A 2  Sport Specific Training
36.00 hrs lab
Units: 0.50
Advisory: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed to improve neuromuscular coordination and agility related to sport-specific movements. Course is designed for intercollegiate-level athletes. Repeatable = 3 times (GR)

ATHL-110A 3   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 and agility related to sport-specific movements. Course is designed for intercollegiate-level athletes. Repeatable = 3 times (GR)
ATHL-112A2 Advanced Strength Training
36.00 hrs lab
Units: 0.50
Advisory: Medical clearance within the last year
Accepted For Credit: CSU & UC
This activity class is designed to assist the student athlete with advanced strength training techniques for personal muscular development. Repeatable = 3 times (GC)

ATHL-112A3 Advanced Strength Training
54.00 hrs lab
Units: 1.00
Advisory: Medical clearance within the last year
Accepted For Credit: CSU & UC
This activity class is designed to assist the student athlete with advanced strength training techniques for personal muscular development. 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 the athlete to continue their strength and conditioning requirement while exploring alternate methods of exercise. There will be an opportunity to develop new strength training techniques, focus on specific systems of the body such as the cardiorespiratory system, and to achieve a sense of body readiness when it pertains to an upcoming sports season. Repeatable = 3 times (GR)

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 the athlete to continue their strength and conditioning requirement while exploring alternate methods of exercise. There will be an opportunity to develop new strength training techniques, focus on specific systems of the body such as the cardiorespiratory system, and to achieve a sense of body readiness when it pertains to an upcoming sports season. Repeatable = 3 times (GR)

ATHL-122A2 Progressive Weight Training
36.00 hrs lab
Units: 0.50
Advisory: Medical clearance within the last year
Accepted For Credit: CSU & UC
Set in the Fitness Lab, this course includes the use of free weights, machine weights, lifting platforms to develop, and improve muscular strength and endurance. Repeatable = 3 times (GC)

ATHL-122A3 Progressive Weight Training
54.00 hrs lab
Units: 1.00
Advisory: Medical clearance within the last year
Accepted For Credit: CSU & UC
Set in the Fitness Lab, this course includes the use of free weights, machine weights, lifting platforms to develop, and improve muscular strength and endurance. Repeatable = 3 times (GC)

ATHL-220 Intercollegiate Volleyball, Women
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate women’s volleyball. Students will refine volleyball specific skills, improve their strength, 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-222 Intercollegiate Soccer, Women
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate women’s soccer. Students will refine sports specific skills, improve their strength, 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-223 Intercollegiate Soccer, Men
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate men’s soccer. Students will refine sports specific skills, improve their strength, 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-224  Intercollegiate Waterpolo, Women  
180.00 hrs lab  
Units: 3.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is designed for student-athletes to participate in intercollegiate women's water polo. Students will refine sports specific skills, improve their strength, 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-225  Intercollegiate Waterpolo, Men  
180.00 hrs lab  
Units: 3.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is designed for student-athletes to participate in intercollegiate men's water polo. Students will refine sports specific skills, improve their strength, 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-226  Intercollegiate Basketball, Women  
180.00 hrs lab  
Units: 3.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is designed for student-athletes to participate in intercollegiate women's basketball. Students will refine sports specific skills, improve their strength, 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-226A  Intercollegiate Basketball I, Women  
108.00 hrs lab  
Units: 2.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU  
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)  

ATHL-226B  Intercollegiate Basketball II, Women  
72.00 hrs lab  
Units: 1.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU  
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)  

ATHL-227  Intercollegiate Basketball, Men  
180.00 hrs lab  
Units: 3.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is designed for student-athletes to participate in intercollegiate men's basketball. Students will refine sports specific skills, improve their strength, 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-227A  Intercollegiate Basketball I, Men  
108.00 hrs lab  
Units: 2.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU  
This course is designed for student-athletes to participate in intercollegiate men's basketball. Students will refine sports specific skills, improve their strength, 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-227B  Intercollegiate Basketball II, Men  
72.00 hrs lab  
Units: 1.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU  
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 competition and post competition season. Repeatable = 3 times (GC)  

ATHL-228  Intercollegiate Swimming, Women  
180.00 hrs lab  
Units: 3.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is designed for student-athletes to participate in intercollegiate women's swimming. Students will refine sports specific skills, improve their strength, 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-229  Intercollegiate Swimming, Men  
180.00 hrs lab  
Units: 3.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is designed for student-athletes to participate in intercollegiate men's swimming. Students will refine sports specific skills, improve their strength, 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-230  Intercollegiate Softball, Women  
180.00 hrs lab  
Units: 3.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is designed for student-athletes to participate in intercollegiate women's softball. Students will refine sports specific skills, improve their strength, 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-231  Intercollegiate Baseball, Men  
180.00 hrs lab  
Units: 3.00  
Prerequisite: Medical clearance within the last year  
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  
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  
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  
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  
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  
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  
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  
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)

BIOLOGY (BIOI)

BIO-201A Principles of Biology – Molecular and Cellular  
54.00 hrs lecture, 108.00 hrs lab  
Units: 5.00  
Prerequisite: CHEM-101A  
Advisory: Eligible for ENGL-151B and ENGL-163; BIOL-130  
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, function, metabolism, cellular reproduction, Mendelian genetics, molecular genetics, genetics of prokaryotes and viruses, biotechnological techniques, and evolution. Students taking this course should plan to also take Biology 101B. C-ID BIOL 190 (GR)

BIO-201B Principles of Biology – Organisms and Systems  
54.00 hrs lecture, 108.00 hrs lab  
Units: 5.00  
Prerequisite: BIOI-201A  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course is an introduction to biological principles for biology and health professions majors. Topics emphasized include evolution, systematics, prokaryote and eukaryote diversity (including a survey of the Kingdoms Protista, Fungi, Animalia, and Plantae), anatomy, physiology of animals, plant structure, function, and ecology. This course completes the lower-division core curriculum in biology for biology and pre-health professions majors. (GR)

BIOI-103A Human Anatomy and Physiology  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: Completion within past three years of BIOL-130 and CHEM-109  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course will cover cell biology, anatomy, histology, and physiology of the following body systems: integumentary, skeletal, muscles, nervous, endocrine, and reproductive. Key concepts covered will include homeostasis, structure function relationships, the physiology of excitable membranes, and interactions of body systems. (GR)
BIOL-103B  Human Anatomy and Physiology
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: BIOL-103A
Accepted For Credit: CSU & UC
This course is the second semester of the one year anatomy and physiology sequence. It will cover the cardiovascular, lymphatic, immune, respiratory, renal, and digestive systems of the human body. Laboratories include animal, cadaver dissection, histology, physiological recordings. (GR)

BIOL-104  Basic Human Anatomy and Physiology
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Accepted For Credit: CSU & UC
This course surveys the structure and function of the major organ systems of the human body. The survey stresses the homeostatic functions of these organ systems in the context of human health. This course is not appropriate for health science majors. (GC)

BIOL-105  Heredity, Evolution, and Society
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course is an introduction to the principles of genetics and evolution for non-science majors. The mechanisms of heredity and evolution will be studied with an emphasis on the human aspect of both subjects. (GC)

BIOL-106  Microbiology
54.00 hrs lecture, 108.00 hrs lab
Units: 5.00
Prerequisite: BIOL-130 and CHEM-109
Accepted For Credit: CSU & UC
This course presents basic microbiology with an emphasis on the medical significance of microorganisms, methods to study, control microbes, and the principles of aseptic technique. (GR)

BIOL-107  Microbiology and Infectious Diseases
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course is directed toward understanding the biology of microorganisms, their relationship to disease, their control, and the human defense system. (GR)

BIOL-109  Biology of Sexual Reproduction
54.00 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-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
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  Introduction to Biology
54.00 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. Fundamental biological principles are covered including cell structure and function, ecology, evolution, genetics, taxonomy, and reproduction. (GC)

BIOL-131D  Review of Biological Concepts
18.00 hrs lecture
Units: 1.00
Corequisite: Concurrent enrollment in the appropriate biology classes
This course is designed to review course content in selected Biology course(s). This course introduces study techniques and more in-depth discussions of basic biological principles in the selected courses. (CR)

BIOL-140  Sierra Nevada Natural History
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
An introduction to the plants, animals, and geology of the Sierra Nevada. A three-day camping and learning experience in the Sierra Nevada will take place at the end of the semester. Emphasis is on learning the common plants and animals of the region. Recommended for anyone interested in natural history or ecology of the Sierra Nevada. (GC)

BIOL-141  Marine Biology
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-151B
Accepted For Credit: CSU & UC
This course covers basic concepts of marine ecosystems including oceanographic principles, ecology, and a survey of marine habitats and diversity of marine organisms. Will include two field trips to pacific tidal zones and to San Francisco Bay ecosystems. (GC)

BIOL-142  Environmental Biology
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Cross-referenced Course: ENVS-142
Advisory: Eligible for ENGL-151B and ENGL-163
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, ecosystems, and efforts to protect species and their habitats (conservation). No previous biology experience required. (GR)
**BIOT-100** Biotechnology and Society  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
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, 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  
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 will maintain a professional laboratory notebook, practice the behavior and skills required in a modern biotechnology lab. (GR)

**BIOT-102** Chemical Safety and Hygiene  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Cross-referenced Course: CHMT-102  
A course about chemical and lab safety in the workplace with emphasis on hazardous materials and chemical safety; Material Safety Data Sheets; government regulations such as OSHA, FDA, FTC, and EPA; appropriate chemical disposal and recycling methodologies; inventory and storage; classification of chemicals according to safety and health hazards; ANSI standards; workers compensation; and quality assurance. In addition, a brief overview of development of Good Laboratory Practice (GLP) and Good Manufacturing Practice (GMP) will also be taught. (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  
4.50 hrs lecture, 13.50 hrs lab  
Units: 0.50  
Cross-referenced Course: CHMT-104A  
This course gives the student 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-104B** Gas Chromatography  
4.50 hrs lecture, 13.50 hrs lab  
Units: 0.50  
This course is designed for beginners and intermediate level practitioners who want practical laboratory experience in gas chromatography. This course provides the fundamentals needed to understand the technique and instrumentation involved in this powerful analytical tool and covers basic gas chromatography theory, different columns, phases, qualitative identification, data capture, quantitation, integration, practical applications, and troubleshooting. At the end of the course the student will have mastered the fundamentals of GC, participated in extensive hands-on laboratory sessions, and learned specialized techniques based on the student’s specific interests. (GR)

**BIOT-105** Introduction to Cell and Molecular Biology  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: MATH-151 and ENGL-151B  
Accepted For Credit: CSU & UC  
This course introduces basic laboratory research methods (measuring volume and mass, preparing solutions, using micropipetters, operating a spectrophotometer) and introductory concepts of biology (chemistry of life, cell structure and function, and classic and modern 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 will 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 will learn library construction techniques, replica plating, and the use of non-radioactive oligonucleotide probes for searching libraries. (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-110A2, BIOT-111A, or BIOL-101A
Accepted For Credit: CSU
Students will learn advance 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
Advisory: ENGL-101A and MATH-151
Accepted For Credit: CSU
This course is an introduction to computational techniques to address current biological problems. The course focuses DNA, RNA, protein sequence analysis, protein structure prediction, biological databases, database searching, genome annotation methods, and microarray technology. (GC)

BIOT-113  GMP/GLP and Writing SOPs
27.00 hrs lecture
Units: 1.50
Prerequisite: BIOT-105
Accepted For Credit: CSU
This course gives an introduction to the concepts of GMP (Good Manufacturing Practice) and GLP (Good Laboratory Practice), 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 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
Cross-referenced Course: BIOL-114
Accepted For Credit: CSU
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; 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 will 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 will 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 covers the basics of immunology and the immunological technology relevant to biotechnology. Topics covered include cell culture and protein chemistry relating to immunology, the lymphatic system, cellular immunity, cell typing, humoral immunity, immunoglobulins, making antibodies, ELISA and EIA, affinity chromatography, clinical immunology, and autoimmune diseases. (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-120A  Introduction to SEM Technology
9.00 hrs lecture
Units: 0.50
Advisory: BIOL-130
Accepted For Credit: CSU
Students will learn theory and applications of Scanning Electron Microscopy in biological and non-biological disciplines including historical development of electron microscopes and current high technology applications of Scanning Electron Microscopes. (GR)

BIOT-120B  SEM – Biological Applications and Techniques
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Prerequisite: BIOT-120A
Accepted For Credit: CSU
Students will learn theory, operation, and applications of Scanning Electron Microscopy (SEM) in biological sciences including techniques for biological specimen preparation. (GR)
BIOT-120C SEM – Applications in Physical Science and Engineering
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Prerequisite: BIOT-120A
Accepted For Credit: CSU
Students will learn theory, operation, and applications of Scanning Electron Microscopy in physical sciences. The course will demonstrate the use of microscopic imaging, compositional detectors for problem solving in material sciences, forensics, and environmental sciences. (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 the emerging careers in Biotechnology including agricultural, environmental, forensics, industrial, pharmaceutical, and medical biotechnology careers. Students will have an opportunity to meet many professionals in various biotechnology positions and to discuss the range of career options available and educational training required for each career. (GR)

BIOT-122 Introduction to Nanotechnology
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU
Nanotechnology explores exciting potential applications of science pertaining to tiny structures. Students will be introduced to fundamentals of biology, chemistry, and engineering. (GC)

BIOT-123 Writing SOPs
9.00 hrs lecture
Units: 0.50
Prerequisite: BIOT-105 or BIOL-101A
Advisory: ENGL-101A
Accepted For Credit: CSU
This is a short training course on the writing of Standard Operating Procedures (SOPs) for biotechnology. The course investigates the rational for writing SOPs, and discusses the standards and regulations that need to be taken into account in planning SOPs. The course also covers the procedures, formats, writing styles employed in writing, implementing, and evaluating SOPs. (GR)

BIOT-131 Computing Concepts in Biotechnology
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Cross-referenced Course: CS-131
Accepted For Credit: CSU
This course introduces the basic computing concepts, the most commonly used computer algorithms, and programming languages in biotechnology. (GC)

BIOT-131L LAB Learning Community
18.00 hrs lecture
Units: 1.00
Advisory: Student has taken LAB biotechnology or biochemistry class in high school.
Accepted For Credit: CSU
This course is a learning community designed to support the educational goals of students studying biotechnology or other STEM fields, especially those students who have participated in Learning Alliance for Bioscience biotechnology and/or biochemistry courses (or equivalent) in high school. Each semester the course will cover new content and concepts according to student interests, needs, and new developments in the field of biotechnology. (CR)

BIOT-132L LAB Learning Community, Mentoring Level
18.00 hrs lecture
Units: 1.00
Prerequisite: BIOT-131L
Accepted For Credit: CSU
This course is the second level of a learning community designed to support the educational goals of students studying biotechnology or other STEM fields, especially those students who have participated in Learning Alliance for Bioscience biotechnology and/or biochemistry courses (or equivalent) in high school. Students who have completed the BIOT-131L Learning Community course are eligible to take this mentor-level class. Each semester the course will cover new content and concepts according to student interests and needs, and new developments in the field of biotechnology. (CR)

BIOT-133 Introduction to SAS Programming
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: CS-133
Advisory: BIOT-133 or CS-133
Accepted For Credit: CSU
This course focuses on the following key areas: statistical inference, analysis of variance, multiple regression, categorical data analysis, and logistic regression. (GC)

BIOT-133A Data Analysis Using SAS
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: CS-133A
Advisory: BIOT-133 or CS-133
Accepted For Credit: CSU
This course provides students with a basic understanding of statistical bio-data analysis by using core elements of the SAS system programming language and procedures. Students will be prepared for a globally recognized certificate program offered by SAS institute, the Base SAS Certification. (GC)

BIOT-141B SAS Graphing and ODS
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Cross-referenced Course: CS-141B
Advisory: BIOT-133 or CS-133
Accepted For Credit: CSU
This course introduces SAS/GRAPH and ODS. Learn how to design, construct, and display customized graphs quickly and efficiently. Learn how to create a data set from the results of most SAS procedures and build custom reports. (GC)

BIOT-143 Advanced SAS Programming
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: CS-143
Advisory: BIOT-133 or CS-133
Accepted For Credit: CSU
This course provides students with a basic understanding of macro programming and SQL procedure in SAS software. SQL and macro programming can provide more flexibility and power in data management and data analysis. Students will be prepared to take a globally recognized certificate exam, Base SAS Certification. (GC)
BRDC-110 Digital Video for Web and DVD
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Cross-referenced Course: MM-110
Advisory: MM-102A
Accepted For Credit: CSU
This course is a hands-on introduction to digital video to develop media production skills. The course will combine hands-on demonstrations, technical workshops, readings, discussion, and critiques. Topics include preproduction, creating stories, camera shots, composition, editing (iMovie and Final Cut), transitions, video file formats, compression, special effects, producing video for YouTube, Web sites, and DVD. (GR)

BRDC-120 Introduction to Electronic Media
36.00 hrs lecture
Units: 2.00
Accepted For Credit: CSU
This course introduces the history, structure, function, economics, content, evolution of radio, television, film, the Internet, traditional formats, and emerging electronic media delivery systems. The social, political, regulatory, ethical, and occupational impact of the electronic media are studied. (GR)

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, producing material for broadcast, gathering and delivering local news on the air, operation of 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
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-127A Radio Broadcast Lab
54.00 hrs lab
Units: 1.00
Prerequisite: BRDC-123B
Accepted For Credit: CSU
This course focuses on laboratory practice utilizing knowledge and techniques gained in the radio programming and production courses. KOHL Radio serves as the operational lab. (GR)

BRDC-127B Radio Broadcast Lab
54.00 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
54.00 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
54.00 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, promotion and evaluation techniques, and outlines the responsibilities of the professional radio program director. (GR)

BRDC-129 Digital Radio Studio Systems
18.00 hrs lecture, 108.00 hrs lab
Units: 3.00
Prerequisite: BRDC-123A
Accepted For Credit: CSU
Students taking this course are introduced to advanced operational techniques of digital radio studio systems. Lab assignments are completed in the KOHL studios using the RCS Master Control platform. (GR)

BRDC-130 Broadcast Announcing
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Course concentration is on projection of personality, voice control, pronunciation, related skills necessary for communication of ideas and information via broadcast. Students will learn important microphone techniques, and put them to use under simulated broadcast circumstances. (GR)
BRDC-132  Studio Recording
54.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Cross-referenced Course: MUS-113
Accepted For Credit: CSU
This course is an introduction to the recording studio. The course follows the path of audio signals through the microphone, mixer, signal processors, digital audio workstation (DAW), and monitoring stations. The course explores various types of microphones, the functions of virtual mixing boards, the characteristics of plug-in signal processors, and recording techniques. (GR)

BRDC-134  Final Cut Pro Editing
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Students learn the basics of editing a television package in the digital medium. Students will be trained in the use of Final Cut Pro non-linear editing system under the guidance of broadcast industry professionals. The course examines how cutting edge non-linear editing technology has its roots in film editing, explores similarities between the two, and contrasts both to video editing. The course covers the history of video storage media from 2 AMPEX tape through BETA, current formats including DV and HD. Students also develop storytelling skills. (GR)

BRDC-135  Final Cut Pro Suite-Master
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Students learn advanced techniques used in commercial film and video production. Students develop the ability to create polished transitions, edit multi-camera projects, work with nested sequences, the basics of keyframing and composite modes and how to use noise reduction in Soundtrack Pro to normalize audio tracks. (GR)

BRDC-136  Digital Video and Lighting
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
The basics of shooting a story using professional video cameras under the guidance of broadcast industry professionals. Course covers history of news recording from film to videotape and current memory stick formats. Students develop skills in video production, news gathering, lighting, and storytelling. (GR)

BRDC-137  Video Field Production
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Prerequisite: BRDC-136
Accepted For Credit: CSU
Students learn advanced techniques of shooting video for commercial television news. (GR)

BRDC-138  AVID Editing
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Students learn the basics of editing a television story using AVID non-linear editing system. Students also develop storytelling skills. (GC)

BRDC-141  Live TV Newscast
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Students write, report, anchor, shoot, and edit a weekly newscast which is then broadcast live on local cable and the Internet. (GC)

BRDC-142  Live TV Studio Production
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Students write, report, shoot, and edit feature stories and human-interest stories for broadcast on the college's newscast, which are then broadcast live on local cable and the Internet. (GC)

BRDC-144  Sports Broadcasting
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Advisory: BRDC-136, BRDC-138, BRDC-141, BRDC-142, BRDC-148, or BRDC-152
Accepted For Credit: CSU
Train to do on air play-by-play or be part of the behind-the-scenes production crew on live sports highlights shows and the live broadcast of Ohlone College sporting events. (GC)

BRDC-145  Internet Television
45.00 hrs lecture, 45.00 hrs lab
Units: 3.00
Advisory: BRDC-134
Accepted For Credit: CSU
This course covers how to put together an Internet television show. Students anchor, report, and shoot video and use clips from the Web to assemble a half-hour entertainment program specifically tailored to the requirements of the Internet. (GR)

BRDC-148  Live Television Production
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Students learn to run studio cameras, teleprompter, switcher, audio board, and direct a live broadcast. Students participate in a live weekly newscast. (GC)
BRDC-152  **Film and Video Production**  
54.00 hrs lecture, 72.00 hrs lab  
Units: 4.00  
Advisory: BRDC-134, BRDC-135, BRDC-138, BRDC-144  
Accepted For Credit: CSU  
Advanced film and video production techniques, with emphasis on lighting and short film production. (GC)

BRDC-155  **Mass Media and Society**  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: JOUR-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 class aims to make you a more informed, critical consumer. C-ID JOUR 100 (GR)

**BUSINESS ADMINISTRATION (BA)**

Division: Business, Technology, and Learning Resources  
Dean: Lesley Buehler  
Executive Assistant: Sila Marques  
Location: Fremont campus, Room 1302  
Phone number: (510) 659-6080

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

**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. C-ID ACCT 120 (GR)

**BA-102A  Principles of Economics-Macroeconomics**  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: MATH-152 or MATH-153  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
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. C-ID ECON 202 (GR)

**BA-102B  Principles of Economics-Microeconomics**  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: MATH-152 or MATH-153  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
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. C-ID ECON 201 (GR)

**BA-104  Computer Applications in Accounting**  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Prerequisite: BA-101A  
Accepted For Credit: CSU  
This course covers the application of accounting theory on the computer using spreadsheet software. (GR)

**BA-105  Income Tax Principles**  
72.00 hrs lecture  
Units: 4.00  
Advisory: ENGL-162  
Accepted For Credit: CSU  
This course provides an analysis of the principles, procedures, and terminology of income taxes on individual taxpayers. (GC)

**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**  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: SPCH-115  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU  
Develop vital communication skills for global and diverse professional environments including presentational skills, interviewing, meeting management, small group communication, and leadership skills. (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. (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 needing information about the legal issues involved. The information is very practical and is presented in a clear, concise manner. 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: Eligible for ENGL-151B and MATH-151  
Accepted For Credit: CSU  
This course focuses on methods of problem interpretation and solving of common business calculations. Problems such as taxes, interest, depreciation, stocks, and insurance are covered by means of lecture and individual operations of calculators and computers. (GC)  

BA-125  Introduction to Business  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course examines the purposes, organization, and major activities of business operations. Emphasis is placed on understanding relationships of business, government, and the consumer in a global economy. This is a survey course designed to give students a brief outline of most of the major activities in business. C-ID BUS 110 (GC)  

BA-136  Introduction to International Business  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
This course presents the latest theories and concepts of international business while highlighting the leading role culture plays in global commerce. (GC)  

BA-137  Introduction to International Marketing  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
Survey course that covers the essential elements of international marketing, beginning with its definition and concluding with international marketing strategy implementation. (GC)  

BA-139  Psychology in the Workplace  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: PSY-139  
Advisory: ENGL-101A and PSY-101  
Accepted For Credit: CSU  
This course applies principles of psychology to the workplace. Topics include combination skills, stress, cultural diversity, teamwork, understanding of self, others, motivation, leadership, and other factors crucial to functioning effectively in the workplace. (GC)  

BA-140  Global Business Immersion  
36.00 hrs lecture  
Units: 2.00  
Advisory: ENGL-151A  
Accepted For Credit: CSU  
This course will revolve around a short-term study abroad program based in a particular country, focusing on global business in that country. Students will have an opportunity to explore directly the widest possible variation of business environments and practices. The course will also review the cultural, historical, and political environments which affect the business practices in that country. (GC)  

BA-141A  Business Law  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course is an introduction to law applicable to business including the legal environment of business, ethics, sustainability, contracts, agency, and sales law. C-ID BUS 125 (GC)  

BA-141C  An Introduction to International Business Law  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU  
This course is an introduction to international business law, featuring trade (import and export), licensing agreements for the transfer and protection of patents, copyrights, trademarks, intellectual property (including franchising), active foreign investment through mergers, acquisitions, and joint ventures. (GC)  

BA-143  Sports Marketing  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: KIN-243  
Accepted For Credit: CSU  
This course examines the application of the principles of promotion, sponsorship, sales, revenue, and marketing to the sport and fitness industry. The areas covered will include high school/collegiate athletics, professional sports, and the fitness club industry. (GC)  

BA-144  Sports Management  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: KIN-244  
Accepted For Credit: CSU  
This course provides an overview of professional sport management in North America. The political, historical, social, economic, and cultural impacts of sport management are explored. Topics will include team management, organizational administration, legal issues, public relations, and facility management. Students will become familiar with career opportunities in the sports management field. (GR)  

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**BUSINESS SUPERVISION MANAGEMENT (BSM)**

Division: Business, Technology, and Learning Resources  
Dean: Lesley Buehler  
Executive Assistant: Sila Marques  
Location: Fremont campus, Room 1302  
Phone number: (510) 659-6080

**BSM-101 Fundamentals of Supervision**  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B  
Accepted For Credit: CSU  
This course provides an overview of supervisory 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**  
54.00 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**  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B  
Accepted For Credit: CSU  
This course covers the principles and practices of human resources for first line and above managerial personnel: employment/industrial relations, equal employment opportunity, sexual harassment, training and development, wage/salary/benefit administration, job performance reviews, and safety/accident prevention. (GC)

**BSM-105 Operations Management**  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for 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**  
54.00 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 non-verbal communication, conducting meetings, and effective presentations. (GC)

**CHEMICAL TECHNOLOGY (CHMT)**

Division: Science, Engineering, and Mathematics  
Dean: Mike Holtzclaw  
Executive Assistant: Irene Benavidez  
Location: Fremont campus, Room 8203  
Phone number: (510) 659-6191

**CHMT-102 Chemical Safety and Hygiene**  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Cross-referenced Course: BIOT-102  
A course about chemical and lab safety in the workplace with emphasis on hazardous materials and chemical safety; Material Safety Data Sheets; government regulations such as OSHA, FDA, FTC and EPA; appropriate chemical disposal and recycling methodologies; inventory and storage; classification of chemicals according to safety and health hazards; ANSI standards; workers compensation; and quality assurance. In addition, a brief overview of development of Good Laboratory Practice (GLP) and Good Manufacturing Practice (GMP) will also be taught. (GR)

**CHMT-104A HPLC**  
4.50 hrs lecture, 13.50 hrs lab  
Units: 0.50  
Cross-referenced Course: BIOT-104A  
This course gives the student 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)
CHEMISTRY (CHEM)

Division: Science, Engineering, and Mathematics
Dean: Mike Holtzclaw
Executive Assistant: Irene Benavidez
Location: Fremont campus, Room 8203
Phone number: (510) 659-6191

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
Advisory: CAOT-150
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 thermochernistry, theories of bonding, properties of solids, liquids, gases, and solutions. C-ID CHEM 110; CHEM-101A + CHEM-101B = C-ID CHEM 120S (GR)

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, acids, bases, buffers, proteins, compounds containing transition elements, organic chemistry, and coordination compounds. This course provides students with the necessary foundation for Organic Chemistry, CHEM-112A. C-ID CHEM-101A + CHEM-101B = CHEM 120S (GR)

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, thermochernistry, and gas laws and solutions. Chemistry 102 is intended primarily as a preparation for students planning to take college level Chemistry 101A. This course 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 Chemistry 101A. (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 students interpret everyday occurrences from a molecular point of view. Concepts, not calculations, are emphasized. The course is intended for non-science majors wishing to satisfy the General Education science requirement for CSU and UC transfer institutions. (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 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-110 Organic Chemistry
54.00 hrs lecture, 108.00 hrs lab
Units: 5.00
Prerequisite: CHEM-101B
Accepted For Credit: CSU & UC
CHEM-110 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 multistep synthesis. Heterocyclic compounds, and advanced spectroscopy. (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 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 multistep synthesis, mechanisms, heterocyclic compounds, and spectroscopy. (GR)

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)

CHEM-190 Scientific Research Methodology
9.00 hrs lecture, 2700 hrs lab
Units: 1.00
Prerequisite: Consent of instructor
Advisory: MATH-188; major in science, technology, engineering, or math
This course introduces students to scientific research methods. It includes hypothesis writing, variable identification, experimental design, literature reviews, data interpretation and analysis, research proposal preparation, and presentation of scientific papers. (GR)
CHICANO/LATINO STUDIES  (CHS)

Division:  Arts and Social Sciences
Dean:  Walter Birkedahl
Executive Assistant:  Sheila Holland
Location:  Fremont campus, Smith Center, Room 147
Phone number:  (510) 659-6216

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-Columbian times to 1850. The course emphasizes the political, economic, and social influences of Pre-Columbian America, Spain, Mexico, and the United States. It includes a study of the United States Constitution. (GR)

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 writing by Chicanos and Latinos. Through performing in-depth studies of certain authors, the students will view literature as a reflection of Chicano life. (GR)

CHS-109  Barrio Fieldwork
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
Observation of selected barrios, institutions, agencies. (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. It 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 and Communication
Dean:  Mark Lieu
Executive Assistant:  Kathleen Martinez
Location:  Fremont campus, Room HH-227
Phone number:  (510) 659-6173

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 or 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-102A  Intermediate Mandarin Chinese I
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: CHIN-101A or two years of high school Chinese
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-102B  Intermediate Mandarin Chinese II
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: CHIN-102A 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, writing, and reading in Mandarin, as well as the study of Chinese culture with greater depth. (GR)

CHIN-112  Contemporary Issues of Chinese
54.00 hrs lecture
Units: 3.00
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. (GC)
COMMUNICATION (COMM)

Division: Language and Communication  
Dean: Mark Lieu  
Executive Assistant: Kathleen Martinez  
Location: Fremont campus, Room HH-227  
Phone number: (510) 659-6173

COMM-100 Introduction to Communication Theory  
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
Analyze and evaluate the major communication theories and research in the communication studies field. C-ID COMM 180 (GR)

COMM-101 Computer Mediated Communication  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
This course explores various human relationships using computer mediated communication (CMC) such as Twitter, Facebook, email, blogs, online games, and business networking sites. This is a survey, social science course that addresses the theoretical issues related to CMC such as how we represent identity, form and maintain relationships, and the various levels of mass media consumption. (GR)

COMM-108 Visual Communication  
54.00 hrs lecture, 36.00 hrs lab  
Units: 3.00  
Cross-referenced Course: MM-108  
Accepted For Credit: CSU & UC  
This course explores the fundamental elements of visual communication presented through lectures and applied through studio experiences. Examine the methods of visual communication from Gutenberg to Google, analyzing examples in a variety of visual forms including print (newspaper and magazine), graphics, illustrations, photographs, video, motion pictures, and digital media. C-ID JOUR 170 (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)

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COMPUTER APPLICATIONS AND OCCUPATIONAL TECHNOLOGY (CAOT)

Division: Business, Technology, and Learning Resources  
Dean: Lesley Buehler  
Executive Assistant: Sila Marques  
Location: Fremont campus, Room 1302  
Phone number: (510) 659-6080

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 in a two part series covering topics which include how to use Word documents, spreadsheets, database management programs, presentation graphics, and how to effectively use personal information manager programs. Students will also learn how to integrate program components. (GC)

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 in a two part series covering topics which include how to use Word documents, spreadsheets, database management programs, presentation graphics, and how to effectively use personal information manager programs. Students will also learn how to integrate program components. (GC)

CAOT-104 Basic Keyboarding  
54.00 hrs lab  
Units: 1.00  
This self-paced introductory course develops basic keyboarding skills for students entering a variety of fields such as computer science, data processing, accounting, or any other occupation that utilizes a keyboard similar to a typewriter to input information. No typing applications will be covered. (GC)

CAOT-110A Beginning Keyboarding  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
This course includes mastery of the keyboard with touch typing. (GR)

CAOT-110B Beginning Keyboarding II  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Prerequisite: CAOT-110A  
This self-paced course includes an introduction to memo business, personal letters, and simple reports. (GR)

CAOT-110C Beginning Keyboarding III  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Prerequisite: CAOT-110B  
CAOT-110C is the final course in a three-part series where students learn mastery of creating and formatting business documents. (GC)

CAOT-111 Intermediate Keyboarding  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Prerequisite: CAOT-110C  
This self-paced course includes improvement of basic skills, letter production, business forms, tabulated reports, and manuscripts. (GC)
COMPUTERS, NETWORKS, AND EMERGING TECHNOLOGY (CNET)

Division: Business, Technology, and Learning Resources
Dean: Lesley Buehler
Executive Assistant: Sila Marques
Location: Fremont campus, Room 1302
Phone number: (510) 659-6080

CNET-101 Introduction to Computers and Information Technology
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: CS-101
Advisory: Eligible for ENGL-151B and ENGL-163; concurrent enrollment in CS-101A
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 will examine a broad overview of topics including software, hardware, the networking of computer systems, and information technology. Students will explore the implications of this technology with regard to today's information society. (GC)

CNET-105 IT Essentials (CompTIA A+)
54.00 hrs lecture, 54.00 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's A+ certification exam. (GC)

CNET-108 IT Project Management
54.00 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-110 ICT Summer Institute (CCENT Bootcamp)
9.00 hrs lecture, 81.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
The Institute enables high school students and graduates to complete their ICT pathway study. Skills learned include installing, operating, optimizing, troubleshooting routed and switched networks; connecting to other networks (LANs and WANs); installing wireless network; identifying security threats. Hands-on exercises in all of these areas will reinforce student learning. (GC)
CNET-114  How Technology Works  
54.00 hrs lecture, 54.00 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-115  Introduction to Robotics and Automated Systems  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: ENGI-115  
Accepted For Credit: CSU  
Students who take this course will understand how scientific innovation can affect their lives either directly or indirectly. The course will teach students the principles of scientific methodology as it is applied to solving problems. The application of this scientific method will be used to navigate an abundance of technical information—to obtain the information, to understand the information, and to determine how to apply it. This course describes the functional hardware and software components of automated systems. Students will experience how scientific principles are applied by building and programming robots. The emphasis is for students to learn science by actually doing science. (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 ESXi 4.0, ESX 4.0, and vCenter Server 4.0. (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-124A  Virtual Desktop Administration – Citrix  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
This course covers the desktop delivery models, XenDesktop proof-of-concept and production environments configuration; virtual desktop assignment; user experience customization through policies; single-image desktop management through Provisioning services; virtual machine hosting on a client device using Citrix XenClient; and an introduction to the new features included in Citrix XenDesktop. (GC)  

CNET-124B  Virtual Application Administration – Citrix  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
This course provides the foundation necessary for administrators to effectively centralize and manage applications in the datacenter and instantly deliver them as a service to users anywhere. Learners will receive training for installing and configuring Citrix XenApp for Windows Server 2008 R2, Citrix Receiver, and plug-ins, as well as for using administrative consoles and tools to configure resources, policies, server and farm settings, printers, virtualized applications, and more. (GC)  

CNET-135  Oracle Database Administration  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
The Oracle Database 12c Administration course will teach students about the Oracle Database architecture. Students will discover how to effectively manage an Oracle Database instance, configure the Oracle Network Environment, and perform database maintenance. (GC)
CNET-140 Linux System Administration I (LPI-1)
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: CNET-146
Accepted For Credit: CSU
This course is intended for students who want to learn about Linux 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-141 Linux System Administration II (LPI-2)
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: CNET-140
Accepted For Credit: CSU
This course is intended for students who want to learn advanced system administration skills using the Linux operating system and prepare to pass the LPI-2 certification exam. The course provides comprehensive coverage of advanced topics related to Linux certification, including Linux distributions, installation, administration, X-Windows, networking, and security. (GC)

CNET-145 PHP Programming with MySQL
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Cross-referenced Course: CS-145
Accepted For Credit: CSU
This is a programming class teaching the student how to access a relational database (MySQL) and generate Web pages using PHP. The student does not need prior programming experience but general computer knowledge is recommended. (GC)

CNET-146 Introduction to UNIX/Linux
36.00 hrs lecture, 54.00 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-152 Data Communications
36.00 hrs lecture
Units: 2.00
Cross-referenced Course: CS-152
Accepted For Credit: CSU
This course is an introduction to data communications. It will include Internet, e-mail, modems, communication protocol, local area networks, wide area networks, network design, and management. (GC)

CNET-154 Network Technician Training
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Accepted For Credit: CSU
This course prepares students for the knowledge and skills required to successfully install, operate, and troubleshoot a small branch office network. The course includes topics on networking fundamentals; connecting to a WAN; basic security and wireless concepts; routing and switching fundamentals; the TCP/IP and OSI models; IP addressing; WAN technologies; operating and configuring IOS devices; configuring RIPv2, static and default routing; implementing NAT and DHCP; and configuring simple networks. (GC)
CNET-155A  Introduction to Networks (CCNA1)  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: CS-152 or CNET-152  
Accepted For Credit: CSU  

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It 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; performing basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. This course is preparation for the CCENT and CCNA certification exams. (GC)

CNET-155B  Routing and Switching Essentials (CCNA2)  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Accepted For Credit: CSU  

This course describes the architecture, components, operation of routers, explains the principles of routing and routing protocols. Students analyze, configure, verify, troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. By the end of this course, students will be able to recognize and correct common routing issues and problems. This course is preparation for the Cisco Certified Networking Associate (CCNA) certification. (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 this 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-157  TCP/IP and Internetworking  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: CS-157  
Prerequisite: CS-152 or CNET-152  
Accepted For Credit: CSU  

This course provides an introduction and overview of TCP/IP technology. Topics include TCP/IP concepts, protocol architecture, and installation techniques. It prepares the student to pass the certification exam, Internetworking Microsoft TCP/IP, to become an MCP/MCSE. (GR)

CNET-158  Wireless Networks  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: CNET-105, CNET-155A  
Accepted For Credit: CSU  

This introductory course to wireless communication and LANs focuses on the design, planning, implementation, operation, and troubleshooting of Wireless LANs. It covers a comprehensive overview of technologies, security, and design best practices with particular emphasis on hands on skills. (GC)

CNET-160A  Microsoft 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 Certified Technology Specialist (MCTS) 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, 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-162 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-167 Microsoft Exchange Server
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
This course will provide students with the knowledge and skills to plan, deploy, manage, secure, and support Microsoft Exchange Server 2013. This course will teach students how to configure Exchange Server 2013 and supply them with the information needed to monitor, maintain, and troubleshoot Exchange Server 2013. This course will also provide guidelines, best practices, and considerations that will help optimize performance and minimize errors and security threats in Exchange Server 2013. The course will help participants prepare for Microsoft Exam 70-341. (GC)

CNET-168A Querying Microsoft SQL Server
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
This course is the foundation for all SQL Server-related disciplines namely Database Administration, Database Development, and Business Intelligence. This course helps students prepare for exam 70-461. Students will learn to write basic Transact-SQL queries for Microsoft SQL Server 2012. (GC)

CNET-168B Administering Microsoft SQL Server
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Advisory: CNET-168A
Accepted For Credit: CSU
Students will learn how to plan, install, configure, and troubleshoot a Microsoft SQL server 2012. Students will perform installation, maintenance, and configuration tasks. Other skills include setting up database systems, making sure those systems operate efficiently, regularly storing, backing up, and securing data from unauthorized access. (GC)

CNET-168C Implementing a Data Warehouse with Microsoft SQL Server
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
Data warehousing is a solution organizations use to centralize business data for reporting and analysis. Students in this course will learn how to create a data warehouse with SQL Server 2012, implement ETL with SQL Server Integration Services, validate and cleanse data with SQL Server Data Quality Services, and SQL Server Master Data Services. (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
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
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. Prepares students for the Cisco CCNA-Security certification exam. (GC)

CNET-180 IP Telephony and VoIP Implementation
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
The course offers an overview of the issues related to carrying voice on a data network, the protocols used, and the issues associated with VoIP, troubleshooting, security, and design. The course begins with describing the basic technologies used in the Public Switched Telephone System. It then describes the challenges and technologies used to send voice calls over a packet switch network like the Internet. (GC)

CNET-182 Advanced Routing (CCNP ROUTE)
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This is the first of three courses leading to the Cisco Certified Network Professional (CCNP) designation. This course introduces students to scaling IP networks. Students learn to use VLSM, private addressing, and NAT optimize IP address utilization. The majority of the course content is related to learning how to implement the RIPv2, EIGRP, OSPF, IS-IS, and BGP routing protocols. In addition, the course details the important techniques used for multicasting, route filtering, and route redistribution. This course will prepare students for the Cisco Certified Networking Professional (CCNP ROUTE) 642-901 exam. (GC)
CNET-186  Troubleshooting IP Networks (CCNP TSHOOT)
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Advisory: CNET-182 and CNET-184
Accepted For Credit: CSU
This course teaches students how to monitor and maintain complex, enterprise routed and switched IP networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices, in a systematic and ITIL-compliant approach. Extensive labs emphasize hands-on learning and practice to reinforce troubleshooting techniques. (GC)

CS-101  Introduction to Computers and Information Technology
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: CNET-101
Advisory: Eligible for ENGL-151B and ENGL-163; concurrent enrollment in CS-101A
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 will examine a broad overview of topics including software, hardware, the networking of computer systems, and information technology and surveys of programming languages. The student will explore the implications of this technology with regard to today's information society.

CS-101A  Computer Applications I
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Cross-referenced Course: CAOT-101A
Advisory: CS-101
Accepted For Credit: CSU
This course is the first in a two part series covering topics which include how to use Word documents, spreadsheets, database management programs, presentation graphics, and how to effectively use personal information manager programs. Students will also learn how to integrate program components. (GC)

CS-102  Introduction to Computer Programming Using C++
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: MATH-152 or MATH-153
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 will be 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)

CS-104A  Introduction to .NET Programming
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: MATH-152 or MATH-153; CS-101 or CNET-101
Accepted For Credit: CSU & UC
This course covers the skills necessary to create structured Windows Applications. The course uses C# for design and development. Topics covered will include language syntax, event-driven programming, structured programming, most of the standard tools, and user interface strategies. This course is intended for a general audience with no programming experience. (GR)

CS-104B  Advanced .NET Programming
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: CS-104A
Accepted For Credit: CSU & UC
This is an advanced course for .NET application design and development. Three major areas covered are Graphical User Interface for Windows applications; ADO.NET and SQL for access to databases; and XML and ASP.NET for Web forms and services. The .NET Framework will be used in class for program development. (GR)

CS-113  Discrete Mathematics for Computers
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: MATH-163
Prerequisite: MATH-101A and MATH-101B
Accepted For Credit: CSU & UC
This course is an introduction to discrete mathematics and its applications. Topics to be covered include logic, sets, relations, functions, combinatorics, graph and tree theory, Boolean algebra, Proofs, and algorithms. Applications to computer studies and other related areas will be presented. C-ID COMP 152 (GC)

CS-116  Object-Oriented Programming Using C++
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: 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. It 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)
**CS-118**  
**Introduction to Assembly Language Programming**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: CS-102  
Accepted For Credit: CSU & UC  
This course is an introduction to Assembly Language for Intel-based computers. Topics include numbering systems, architecture, native machine instructions, memory addressing, subroutines, interrupt handling, file I/O, and interaction between assembly language programs, the operating system, and other languages. C-ID COMP 142 (GR)

**CS-124**  
**Programming With Data Structures**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: CS-102  
Accepted For Credit: CSU & UC  
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 graphs; the use of recursion; and the application of these tools primarily in searching and sorting. Students will implement these concepts by writing numerous programs in an object-oriented language such as C++. C-ID COMP 132 (GR)

**CS-125**  
**Introduction to Programming Using Java**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
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 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. C-ID COMP 112 (GC)

**CS-131**  
**Computing Concepts in Biotechnology**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: BIOT-131  
Accepted For Credit: CSU  
This course introduces the basic computing concepts, the most commonly used computer algorithms, and programming languages in biotechnology. (GC)

**CS-133**  
**Introduction to SAS Programming**  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: BIOT-133  
Accepted For Credit: CSU  
The SAS system has become the international standard for data management, manipulation, storage, retrieval, and statistical analysis. This course offers a rigorous exposure to statistical bio-data analysis by using core elements of the SAS system programming language and procedures. Students will be prepared for a globally recognized certificate program offered by SAS institute, the Base SAS Certification. (GR)

**CS-133A**  
**Data Analysis Using SAS**  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: BIOT-133A  
Advisory: CS-133 or BIOT-133  
Accepted For Credit: CSU  
This course focuses on the following key areas: statistical inference, analysis of variance, multiple regression, categorical data analysis, and logistic regression. (GC)

**CS-137**  
**Introduction to SQL**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: CNET-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)

**CS-141B**  
**SAS Graphing and ODS**  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Cross-referenced Course: BIOT-141B  
Advisory: CS-133 or BIOT-133  
Accepted For Credit: CSU  
This course introduces SAS/GRAPH and ODS. Learn how to design, construct, and display customized graphs quickly and efficiently. Learn how to create a data set from the results of most SAS procedures and build custom reports. (GC)

**CS-143**  
**Advanced SAS Programming**  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: BIOT-143  
Advisory: BIOT-133/CS-133  
Accepted For Credit: CSU  
This course provides students with a basic understanding of macro programming and SQL procedure in SAS software. SQL and macro programming can provide more flexibility and power in data management and data analysis. Students will be prepared to take a globally recognized certificate exam, Base SAS Certification. (GC)

**CS-145**  
**PHP Programming with MySQL**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: CNET-145  
Accepted For Credit: CSU  
This is a programming course teaching the student how to access a relational database (MySQL) and generate Web pages using PHP. The student does not need prior programming experience but general computer knowledge is recommended. (GC)
**CS-146**

**Introduction to UNIX/Linux**

36.00 hrs lecture, 54.00 hrs lab

Units: 3.00

Cross-referenced Course: CNET-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)

**CS-147**

**UNIX/Linux Shell Scripting**

54.00 hrs lecture, 54.00 hrs lab

Units: 4.00

Cross-referenced Course: CNET-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. It 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)

**CS-149**

**PERL Programming**

54.00 hrs lecture, 54.00 hrs lab

Units: 4.00

Cross-referenced Course: CNET-149

Advisory: CS-102

Accepted For Credit: CSU & UC

This course presents the fundamental knowledge and skills needed to solve problems using the PERL language. This language is particularly well suited to manipulating textual data and remains a favorite among UNIX system administrators for automating common administrative tasks and widespread among web masters for writing CGI applications. (GC)

**CS-151**

**Internet for Research**

9.00 hrs lecture

Units: 0.50

Cross-referenced Course: LS-151

Advisory: ENGL-151A

Accepted For Credit: CSU

This course focuses on finding and evaluating information on the Internet for academic research. It introduces students to the principles of Internet search strategies, citation styles, and how to avoid plagiarism. (CR)

**CS-152**

**Data Communications**

36.00 hrs lecture

Units: 2.00

Cross-referenced Course: CNET-152

Accepted For Credit: CSU

This course is an introduction to data communications. It will include Internet, e-mail, modems, communication protocol, local area networks; wide area networks, network design, and management. (GC)

**CS-157**

**TCP/IP and Internetworking**

54.00 hrs lecture

Units: 3.00

Cross-referenced Course: CNET-157

Prerequisite: CS-152 or CNET-152

Advisory: CS-101 or CNET-101

Accepted For Credit: CSU

This course provides an introduction and overview of TCP/IP technology. Topics include TCP/IP concepts, protocol architecture, and installation techniques. The course prepares the student to pass the certification exam, Internetworking Microsoft TCP/IP, to become an MCP/MCSE. (GR)

**CS-162**

**XHTML**

36.00 hrs lecture, 108.00 hrs lab

Units: 4.00

Cross-referenced Course: MM-162

Advisory: CS-101, CNET-101, or CS-101A

Accepted For Credit: CSU

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 Dynamic Hypertext Markup Language (DHTML) techniques, and working with eXtensible Markup Language (XML) and eXtensible Stylesheet Language (XSL). (GC)

**CS-170**

**Java Programming**

54.00 hrs lecture, 54.00 hrs lab

Units: 4.00

Advisory: CS-102 and CS-125

Accepted For Credit: CSU & UC

This intermediate-level programming course is intended for those students who already have completed an introductory programming course. It 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-172**

**Servlets and JSP**

54.00 hrs lecture, 54.00 hrs lab

Units: 4.00

Advisory: CS-170

Accepted For Credit: CSU

This is an Internet programming and application course using Java technology, including Servlet, JSP, Session tracking, JavaBeans, and JDBBC. (GC)

**CS-173**

**Java EE Programming**

54.00 hrs lecture, 54.00 hrs lab

Units: 4.00

Advisory: CS-170

Accepted For Credit: CSU

This course is an introduction to Java EE and EJB (Enterprise Java Beans). Students will design and develop the business applications and Web Services using Java EE and EJB. (GC)

**CS-174**

**Mobile App Programming in Android**

54.00 hrs lecture, 54.00 hrs lab

Units: 4.00

Prerequisite: CS-125

Accepted For Credit: CSU

This intermediate-level programming course is intended for those students who already have completed an introductory programming course. It presents a comprehensive study of concept and skills in Android programming and helps students develop applications for mobile devices. Students will use a software emulator to develop the application and a real mobile device to demonstrate the application. The focus is on Computer Science aspects to develop, debug, and test a variation of existing applications. (GC)
CS-175  From JavaScript to AJAX
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: CS-101
Accepted For Credit: CSU
This is an introductory to intermediate course for the scripting language JavaScript, the glue between Web interactivity tools. The topics span from basic programming concepts to specific JavaScript syntax and methods used to manipulate information and code, which allow web forms validation, rewriting of HTML pages on the fly, access to XML and other server information using AJAX. (GC)

CS-178  XML
54.00 hrs lecture
Units: 3.00
Advisory: CS-170
Accepted For Credit: CSU
This course is designed to teach students the technologies of XML (the eXtensible Mark-up Language), XSL (eXtensible Style Language), and DSSSL (Document Style Symantics and Specification Language). (GC)

CONSUMER FAMILY SCIENCES  (CFS)

Division: Health Sciences and Environmental Studies
Dean: Gale Carli
Executive Assistant: JoAnne Serran
Executive Assistant: Zelma Hunter
Location: Newark campus, NC1324
Phone number: (510) 742-3100

CFS-104A  Current Issues in Child Nutrition
36.00 hrs lecture
Units: 2.00
Advisory: Eligible for ENGL-151B
Accepted For Credit: CSU
The role and requirements of nutrients for children, teens, and adults are reviewed with a special emphasis on infants and children. Current issues regarding nutrition and feeding of children are discussed. This course is recommended for school food service, child care providers, WIC personnel, and parents. Changes in legislation affecting feeding of children will be addressed. (GC)

CFS-109  Nutrition
54.00 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)

CORRECTIONAL OFFICER  (CO)

Division: Arts and Social Sciences
Dean: Walter Birkedahl
Executive Assistant: Sheila Holland
Location: Fremont campus, Smith Center, Room 147
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 colleges regionally to provide vocational 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) 270-6458.

The application and registration process is completed at the South Bay Regional Public Safety Training Consortium located at 4750 San Felipe Road 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) 270-6458.

CO-220  Correctional Officer Basic
120.00 hrs lecture, 40.00 hrs lab
Units: 4.00
This Core training course is designed to meet the State Board of Corrections regulations for entry-level training of Correctional Officers for adult institutions. This course presents the lecture and practical application skills and knowledge to work in local adult jail facilities. Repeatable = 5 times (GR)

CO-235  Supervisor's School
30.00 hrs lecture, 50.00 hrs lab
Units: 2.00
This course includes values and ethics, role identification, leadership styles, assertive leadership, legal/liability issues, employee performance appraisal, counseling, discipline, employee relations, administrative support, press relations, planning and organizing, communications, report review, investigations, stress, and the transition. This course will be updated regularly for currency according to Standards and Training for Corrections. Repeatable = 5 times (GR)

CO-240  Laws of Arrest, Search and Seizure
12.00 hrs lecture, 32.00 hrs lab
Units: 1.00
This curriculum covers professional orientation, laws of arrest, search, seizure, evidence, preliminary investigations, communications, and arrest techniques. This course satisfies PC 832 requirements for entry level but does not include firearms. The course may be offered as a component of Correctional Officer Core course. Repeatable = 5 times (GR)
**DEAF PREPARATORY PROGRAM (DEAF)**

**Division:** Deaf Studies  
**Dean:** Darline Gunsauls  
**Executive Assistant:** Nora Chopelas  
**Location:** Fremont campus, Room 6203  
**Phone number:** (510) 659-6269

**DEAF-116A ESL Vocabulary I in American Sign Language**
36.00 hrs lecture  
Units: 2.00  
Advisory: Basic ability to communicate in ASL  
This course is the first of two basic vocabulary courses designed for students who are new to the United States or who wish to further develop their English vocabulary skills. Students will strengthen their understanding of words through thematic reading and interactive exercises, by studying word parts, synonyms, and antonyms; and by analyzing their meanings in various written contexts. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)

**DEAF-116B ESL Vocabulary II in American Sign Language**
36.00 hrs lecture  
Units: 2.00  
Advisory: Basic ability to communicate in ASL  
This course is the second in two basic vocabulary courses designed for students who are new to the United States or who wish to further develop their English vocabulary skills. Students will strengthen their understanding of words through thematic reading and interactive exercises, by studying word parts, synonyms, and antonyms; and by analyzing their meanings in various written contexts. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)

**DEAF-118A ESL Writing I in American Sign Language**
54.00 hrs lecture  
Units: 3.00  
Advisory: Basic ability to communicate in ASL  
This course is the first course of a two-semester ESL writing program for Deaf students. This course introduces basic writing skills, emphasizing the structure of English sentences and paragraph development. It is designed for students whose native language is not English. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)

**DEAF-118B ESL Writing II in American Sign Language**
54.00 hrs lecture  
Units: 3.00  
Advisory: Basic ability to communicate in ASL  
This course is the second course of a two-semester ESL writing program for Deaf students. This course further develops basic writing skills, emphasizing the structure of English sentences and paragraph and essay development. Designed for students whose native language is not English. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)

**DEAF-119A ESL Reading I in American Sign Language**
54.00 hrs lecture  
Units: 3.00  
Advisory: Basic ability to communicate in ASL  
This course is the first course of a two-semester ESL reading program for Deaf students. This course is designed for students who are new to the United States or who wish to begin a basic study of English reading at an beginning ESL level, with an emphasis on fluency and vocabulary development. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)

**DEAF-119B ESL Reading II in American Sign Language**
54.00 hrs lecture  
Units: 3.00  
Advisory: Basic ability to communicate in ASL  
This course is the second course of a two-semester ESL reading program for Deaf students. This course is designed for students who are new to the United States or who wish to continue a basic study of English reading at an beginning ESL level, with an emphasis on fluency and vocabulary development. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)

**DEAF-120A Basic Grammar I**
54.00 hrs lecture  
Units: 3.00  
Advisory: DEAF-120A  
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 through interactive exercises, studying sentence parts, writing sentences, and paragraphs. Taught in ASL. Not applicable to associate degree. Repeatable = 5 times (GR)

**DEAF-120B Basic Grammar II**
54.00 hrs lecture  
Units: 3.00  
Advisory: DEAF-120A  
This course is designed for students who wish to develop their English grammar skills through exposure and practice. Students will have opportunities to learn basic grammar rules through interactive exercises and studying sentence parts. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

**DEAF-121A Intermediate Grammar I**
54.00 hrs lecture  
Units: 3.00  
Advisory: DEAF-120A and DEAF-120B  
This course is the first of two courses (DEAF-120A and DEAF-120B) designed for Deaf and Hard-of-Hearing students who wish to further develop their grammar skills through practice and application. Students will have opportunities to learn grammar rules through interactive exercises and studying sentence parts and writing sentences. Not applicable to associate degree. Repeatable = 5 times (GR)
DEAF-131A Intermediate Literacy I
54.00 hrs lecture
Units: 3.00
Advisory: DEAF-131A
This course is designed for Deaf and Hard-of-Hearing students who wish to continue to develop their grammar skills through practice and application. They will have opportunities to apply grammar rules through interactive exercises, studying sentence parts, and writing sentences. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-130A Literacy I
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
This course is the first of two courses designed for Deaf and Hard-of-Hearing students who wish to develop and 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. Repeatable = 5 times (GC)

DEAF-130B Literacy II
54.00 hrs lecture
Units: 3.00
Advisory: DEAF-130A; ASL fluency
This course is the second of two courses designed for Deaf and Hard-of-Hearing students who wish to develop and 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. Repeatable = 5 times (GC)

DEAF-131B Intermediate Literacy II
54.00 hrs lecture
Units: 3.00
Advisory: DEAF-120A, DEAF-120B, DEAF-130A, DEAF-130B
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. Repeatable = 5 times (GR)

DEAF-140A Lifeskills Mathematics I
36.00 hrs lecture
Units: 2.00
Advisory: ASL fluency
This course provides students with real world application of basic math skills in the areas of money management, banking, and consumerism. This is the first part of a two-semester course. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-140B Lifeskills Mathematics II
36.00 hrs lecture
Units: 2.00
Advisory: DEAF-140A; ASL fluency
This course provides students with real world application of basic math skills in the areas of money management, banking, consumerism, and employment. This is the second part of a two-semester course. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-141A Workplace Communication I
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
This course focuses on workplace communication skills for employment preparation. Emphasis will be on both written and signed communication with hearing co-workers and supervisors. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-141B Workplace Communication II
54.00 hrs lecture
Units: 3.00
Advisory: DEAF-141A; ASL fluency
This course is taught in continuation of workplace communication skills for employment preparation. Emphasis will be on both written and signed communication with hearing co-workers and supervisors. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-143 Deaf Vocational Awareness
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Advisory: DEAF-145B
This course provides Deaf students opportunities to visit and tour a variety of Bay Area businesses. Students will learn to contact employers by using an interpreter on the phone to set up the field trips. While touring the work site students will apply practical informational interviewing skills using an interpreter for communication purposes to gather facts about work requirements, job duties, application procedures, and employment protocol. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-145B Job Seeking Strategies for Deaf Students
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
This course allows student job seekers to evaluate their own interests, skills, and aptitudes and relate them to employment. Students will develop strategies and practice specific skills necessary for a successful job hunt to result in gainful employment. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-146 Work Experience Seminar
36.00 hrs lecture
Units: 2.00
Advisory: ASL fluency
Designed for students to get training while having their work experience class at Ohlone College. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-147A Citizenship: Introduction
54.00 hrs lecture
Units: 3.00
This course is the first of four courses designed for Deaf and Hard-of-Hearing students who need to develop pre-employment readiness. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-147B Citizenship: One's Role
54.00 hrs lecture
Units: 3.00
Prerequisite: DEAF-147A
This course is the second of four courses in the Direct Employment Program designed for Deaf and Hard-of-Hearing students who need to develop next level of skills in job readiness. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)
DEAF-148 Community Service
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
This course will focus on the concept and experience of community service and provide hands-on-community-based learning experience. The course will introduce the definition and importance of community service and volunteerism, and their importance in career development, and will address safe practices in new environments and using tools. Performance expectations will be applied to community service participation. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-157A English Composition Techniques
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
This course is the first of two courses with strong emphasis on refinement of English composition skills as applied through paragraph development. Students are exposed to a variety of well-written essays and guided through an analysis of structure, content, and style. Taught in ASL only. Not applicable to associate degree. Repeatable = 2 times (GR)

DEAF-157B Principles of Composition
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
This course is the second of two courses with a strong emphasis on refinement of English composition skills as applied through paragraph and essay development. Students are exposed to a variety of well-written paragraphs and essays and guided through an analysis of structure, content, and style. Taught in ASL only. Not applicable to associate degree. Repeatable = 2 times (GR)

DEAF-159A Reading Strategies
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL fluency
This course is the first of two courses with an emphasis on introduction to reading and study techniques. Students learn various skills to analyze a variety of readings including essays and news articles. This course is designed to prepare students for more extensive courses in reading. Taught in ASL only. Not applicable to associate degree. Repeatable = 2 times (GR)

DEAF-159B Reading Techniques
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
This course is the second of two courses with an emphasis on introduction to reading and studying techniques. Students learn various skills to analyze a variety of readings including essays and news articles. This course is designed to prepare students for more extensive courses in reading. Taught in ASL only. Not applicable to associate degree. Repeatable = 2 times (GR)

DEAF-160A Personal and Social Awareness I
36.00 hrs lecture
Units: 2.00
Advisory: ASL fluency
This is a practical course designed to explore issues relevant to Deaf college students. Group activities will focus on personal challenge and growth. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-160B Personal and Social Awareness II
36.00 hrs lecture
Units: 2.00
Prerequisite: DEAF-160A
This is a continuation of DEAF-160A and is designed to explore issues relevant to Deaf college students. Group activities will focus on personal challenge and growth. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-161 Introduction to the Deaf Community
54.00 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 and current issues within the Deaf community are discussed. Community resources are presented. Taught in ASL. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-165 Study Techniques: MS Word, MS Excel, and MS Access
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Prerequisite: ASL fluency
Introductory use of Microsoft Word, Microsoft Excel, and Microsoft Access to prepare students for college-level work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)

DEAF-166 Study Techniques: Introduction to Multimedia Photoshop, MS PowerPoint, and MS Publisher
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Advisory: ASL fluency, DEAF-165
Introductory course in the use of PhotoShop, Microsoft PowerPoint, MS Publisher, and use of digital camera to prepare students for college-level work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)

DEAF-175A IUPP Grammar I
54.00 hrs lecture
Units: 3.00
This course is designed for students who already have an intermediate to advanced knowledge of English sentence structure but who need further refinement of grammar and other language skills. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)
DEAF-175B IUPP Grammar II
54.00 hrs lecture
Units: 3.00
This course is designed for students who have successfully completed DEAF-175A and wish to continue to strengthen and refine their grammar skills. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GC)

DEAF-176A Academic Vocabulary I
36.00 hrs lecture
Units: 2.00
Advisory: ASL fluency
This course is the first of two courses designed for students who wish to improve their vocabulary through exposure to words found in academic coursework. Students will strengthen their understanding of words through thematic reading and interactive exercises, by studying word parts, synonyms, and analogies, and by analyzing their meanings in various written contexts. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)

DEAF-176B Academic Vocabulary II
36.00 hrs lecture
Units: 2.00
Advisory: ASL fluency
This course is the second of two courses designed for students who wish to improve their vocabulary through exposure to words found in academic coursework. Students will strengthen their understanding of words through thematic reading and interactive exercises, by studying word parts, synonyms, and analogies, and by analyzing their meanings in various written contexts. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (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 three-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 summaries and well-developed, well-organized essays. The course is designed to prepare students who are fluent in ASL for college-level English composition and academic course work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (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 three-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 who are fluent in ASL for college-level English composition and academic course work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)

DEAF-188C Intensive University Preparation – Academic Writing III
72.00 hrs lecture
Units: 4.00
Prerequisite: ASL fluency
This course is the third course in a three-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 summaries and well-developed, well-organized essays. The course is designed to prepare students who are fluent in ASL for college-level English composition and academic course work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GC)

DEAF-189A Intensive University Preparation – Academic Reading I
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
This course is the first course of a three-semester academic reading program. This course provides an introduction to reading and study techniques. Students learn to analyze, annotate, and summarize a variety of readings including essays, news articles, and textbook chapters. The course is designed to prepare students for college-level course work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (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 three-semester reading program. This course focuses on improvement of reading and study skills. Students analyze, annotate, and summarize readings of greater length and complexity. The course is designed to prepare students for college-level course work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)

DEAF-189C Intensive University Preparation – Academic Reading III
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
DEAF-189C is the third course of a three-semester reading program. This course focuses on strengthening of 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 course work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)

DEAF-191 Human Potential Seminar
36.00 hrs lecture
Units: 2.00
Prerequisite: Limited to Deaf students only
This practical course is specifically designed to meet the personal growth needs of Deaf students finding their place as Deaf adults in a 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 only. Not applicable to associate degree. Repeatable = 5 times (GR)
**DEAF-311  Introduction to American Deaf Culture**  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B, ENGL-163; ASL fluency  
Accepted For Credit: CSU; Gallaudet  
Introduction to the social, cultural, and sociolinguistic characteristics of Deaf people. Taught in ASL. (GC)

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

**DEAF-330  Educating the Deaf**  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B, ENGL-163; ASL fluency  
Accepted For Credit: CSU  
This course has been designed to provide the student with a general orientation to Deaf/deaf education. The course provides an overview of the historical, philosophical, and social aspects of Deaf education. The course analyzes the impact of Deaf education on hearing families. In addition, it provides an orientation to problems, issues, research, legislation, and current trends in the field of education of the Deaf. (GR)

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

**DEAF-332  Development of the Deaf Child**  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B, 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)

**DEAF-343  Field Work in Deaf Education**  
162.00 hrs lab  
Units: 3.00  
Prerequisite: Enrollment in the Deaf Education Certification Program  
Advisory: Eligible for ENGL-151B, ENGL-163  
Accepted For Credit: CSU  
This course is designed to provide Deaf Education students with hands-on experience in a Deaf school setting. A weekly seminar is included for group discussion of practicum experience. Taught in ASL. (GR)

**DEAF-365  Supervised Tutoring**  
180.00 hrs lab  
Units: 0.00  
Prerequisite: Instructor or counselor referral  
This course provides students with individualized tutoring. It assists students to develop a learning methodology in a subject. It includes diagnosis and consultation with tutorial coordinator and supervised tutoring by part-time instructional aides and/or student tutors. Not applicable to associate degree. Repeatable = 5 times (NG)

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**EARLY CHILDHOOD STUDIES (ECS)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Type</th>
<th>Credit</th>
<th>Fee</th>
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<tbody>
<tr>
<td>ECS-300</td>
<td>Principles and Practices of Teaching Young Children</td>
<td>54.00 hrs lecture</td>
<td>3.00</td>
<td>CSU &amp; UC</td>
<td>110 (GR)</td>
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<td>ECS-301</td>
<td>Childhood Growth and Development</td>
<td>54.00 hrs lecture</td>
<td>3.00</td>
<td>CSU &amp; UC</td>
<td>120 (GR)</td>
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<td>ECS-302</td>
<td>Introduction to Curriculum</td>
<td>72.00 hrs lecture</td>
<td>4.00</td>
<td>CSU &amp; UC</td>
<td>130 (GR)</td>
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<tr>
<td>ECS-303</td>
<td>Child, Family, and Community</td>
<td>54.00 hrs lecture</td>
<td>3.00</td>
<td>CSU &amp; UC</td>
<td>110 (GR)</td>
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**ECS-304**  Observation and Assessment of Children  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: Eligible for ENGL-101A; ECS-300, ECS-301  
Accepted For Credit: CSU  
This course focuses on the appropriate use of assessment and observation strategies to document development, growth, play, and learning to join with families and professionals in promoting children’s success. Recording strategies, rating systems, portfolios, and multiple assessment tools are explored. C-ID ECE 200 (GR)

**ECS-305**  Health Safety and Nutrition  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A; ECS-300  
Accepted For Credit: CSU  
Introduction to the laws, regulations, standards, policies, procedures, early childhood curriculum related to child health safety, and nutrition. The key components that ensure physical health, mental health, and safety for both children and staff will be identified along with the importance of collaboration with families and health professionals. Focus on integrating the concepts into everyday planning and program development for all children. C-ID ECE 220 (GR)

**ECS-306**  Guidance and Discipline of Young Children  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU  
The principles of positive guidance and discipline based on contemporary research and child development will be discussed in this course. Application of the principles of effective communication, understanding child development and behavior, appropriate limits and rules, structuring problem solving, and consequences will be discussed. This course is appropriate for teachers and parents. (GC)

**ECS-307 A4**  Practicum – Field Experience  
36.00 hrs lecture, 108.00 hrs lab  
Units: 4.00  
Prerequisite: ECS-307, ECS-301, ECS-303  
Advisory: ENGL-101A  
Accepted For Credit: CSU  
A demonstration of developmentally appropriate early childhood teaching competencies under guided supervision. Students will utilize practical classroom experiences to make connections between theory and practice, develop professional behaviors, and build a comprehensive understanding of children and families. Child centered, play-oriented approaches to teaching, learning, and assessment; and knowledge of curriculum content areas will be emphasized as student teachers design, implement, evaluate experiences that promote positive development, and learning for all young children. C-ID ECE 210 (GR)

**ECS-307 B4**  Intermediate Practicum – Field Work  
36.00 hrs lecture, 108.00 hrs lab  
Units: 4.00  
Prerequisite: ECS-307A4  
Advisory: ECS-300, 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 Lab. Students will perform the competencies of a teacher. (GR)

**ECS-307C4**  Practicum – Field Experience  
Children in the Child Lab  
36.00 hrs lecture, 108.00 hrs lab  
Units: 4.00  
Prerequisite: ECS-307A4, ECS-307B4  
Advisory: ENGL-101A, 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. Student will perform the competencies of a Head Teacher/Site Director. (GR)

**ECS-308**  Administration of Programs for Young Children  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A; ECS-300, ECS-301, ECS-302  
Accepted For Credit: CSU  
This course covers principles in organization and management of preschools and childcare centers. Subject matter includes program planning, organization, budgeting, personnel, records, relationships with community resources, regulatory agencies, and working with parents. The legal requirements for operating programs for young children in California provide a framework for course work. (GR)

**ECS-309**  Teaching in a Diverse Society  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU  
Examination of the development of social identities in diverse societies including theoretical and practical implications of oppression and privilege as they apply to young children, families, programs, classrooms and teaching. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. Course includes self-examination and reflection on issues related to social identity, stereotypes and bias, social and educational access, media and schooling. C-ID ECE 230 (GR)

**ECS-310**  Music and Movement Curriculum for Young Children  
54.00 hrs lecture  
Units: 3.00  
Advisory: ECS-300, ECS-301, ECS-302, 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  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A; ECS-300, ECS-301, 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
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
This course examines how children gain oral language and listening skills leading to the development of writing and reading. It will include curriculum development for an emergent literacy environment. (GR)

ECS-314  Literature for the Young Child
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A and ECS-312
Accepted For Credit: CSU
This course provides an in-depth experience with literature for children ages 0-8. The course introduces students to the development of reading in young children, their interests, diversity and reading skill levels of young children. Content to be covered includes the historical development of children's literature, effective techniques used to introduce literature, books, poetry, other reading media, storytelling and reading to children. Students will learn how to extend literature into other curriculum areas. (GR)

ECS-316  Children with Special Needs in Programs for Young Children
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
The course focuses on recognizing and distinguishing the variety of special needs exhibited by children ages 0-12 years. Factors affecting and contributing to the causes and needs of these children will be explored, including genetic, environmental, physical, cognitive, and social. (GR)

ECS-317  Infant and Toddler Development
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Advisory: ECS-301 and ENGL-101A
Accepted For Credit: CSU
A study of infants and toddlers from pre-conception to age three including physical, cognitive, language, social, emotional growth, and development. Applies theoretical frameworks to interpret behavior and interactions between heredity and environment. 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
This course will cover the operation of child care in a home setting. Topics will include home setup, business practices and policies, program planning, parent relations, and communications. California licensing regulations will be covered. Not applicable to associate degree. (CR)

ECS-321  Supervision in Early Childhood Programs
54.00 hrs lecture
Units: 3.00
Prerequisite: ECS-300, ECS-301, and ECS-303
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
This course covers group dynamics, supervision of staff and parents, development of motivation and morale, leadership skills, and functions of personnel. It includes interviews, interpersonal and group conflict resolution, staff evaluations, and working with parents and boards. It is designed to provide knowledge and methods for those working in supervisory capacities in early childhood programs. (GR)

ECS-322  Mentoring and Supervision in Early Childhood Programs
36.00 hrs lecture
Units: 3.00
Advisory: ECS-302, ECS-308; eligible for ENGL-101A
Accepted For Credit: CSU
This course is a study of the methods and principles of supervising student teachers, assistant teachers, parents, and volunteers in early childhood education programs. Emphasis is on the role of master teachers who function as both supervisors and mentors while addressing the needs of children, parents, and other staff. (GR)

ECS-323  Care and Education for Infants and Toddlers
54.00 hrs lecture
Units: 3.00
Prerequisite: ECS-300, ECS-301, ECS-317
Accepted For Credit: CSU
Applies current theory and research to the care and education of infants and toddlers in group settings. 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
54.00 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
54.00 hrs lecture
Units: 3.00
Advisory: ECS-301, ECS-302, ENGL-101A
Accepted For Credit: CSU
This course is the study of the developing child during the school-age years. It focuses on the developmental characteristics; influences on development; individual differences; physical, social-emotional, cognitive, and creative development. It examines the role of the teacher in programs designed for the school-age child. (GR)
**ECS-328**  
Curriculum for the School Age Child  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A; ECS-301 and ECS-302  
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, 18 months experience in a licensed program  
This is the second course for Family Child Care Providers. It covers the role of the provider, the task of managing, relationships between care givers and parents, and providing environments for children. (GC)

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**EDUCATION (EDUC)**

Division: Language and Communication  
Dean: Mark Lieu  
Executive Assistant: Kathleen Martinez  
Location: Fremont campus, Room HH-227  
Phone number: (510) 659-6173

**EDUC-101**  
Exploring Education  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: Eligible for ENGL-151B  
Accepted For Credit: CSU & UC  
This course will introduce students to the field of teaching. The course will include reports and discussions related to direct observations of pre-school, elementary, secondary, higher education, and non-school educational settings. Changing issues in education and their implications for future teaching practices and theories will be examined. (GR)

**EDUC-105**  
Math and Science Future Teacher Seminar  
54.00 hrs lecture  
Units: 3.00  
Advisory: MATH-151 and ENGL-101A  
Accepted For Credit: CSU & UC  
This course is designed to provide students pursuing a career in secondary school math or science teaching with theory and hands-on experience working with children in math and science skills at a local elementary or secondary school. This course includes work with mathematics and science material, assessment, methodology, and the school environment. The course includes 50 hours of on-site field experience, as a service learning component, in a local elementary or secondary school. (GC)

**EDUC-191A**  
Tutor Training I  
9.00 hrs lecture  
Units: 0.50  
This course covers effective methods for tutoring. The do's and don'ts of tutoring, communication skills, and handling challenging situations are a few of the topics covered. Students enrolling in this course must be concurrently employed as a tutor at Ohlone College. CRLA has approved this course for certification, and students who receive CRLA certification are qualified to tutor at any of the over 500 colleges in the U.S. and Canada that have CRLA programs. (CR)

**EDUC-191AL**  
Tutor Training I Lab Consultant  
27.00 hrs lab  
Units: 0.50  
Students will apply skills related to the concepts learned in the EDUC-191A theory course. Students are employed or volunteer to work in tutoring labs throughout Ohlone. Students in this class will use techniques such as do’s and don’ts of tutoring, communication skills, and handling challenging situations when tutoring other students in the lab. Contributes to eligibility for College Reading and Learning Association (CRLA) tutor certification, accepted at more than 500 universities. (CR)

**EDUC-191B**  
Tutor Training II  
9.00 hrs lecture  
Units: 0.50  
This course continues on from EDUC-191A with additional effective methods of tutoring. Learning styles, changing study behaviors, brain dominance theories, and being inventive are among the topics covered. Students enrolling in this course must be concurrently employed or volunteer as a tutor at Ohlone College. Can lead to CRLA (College Reading and Learning Association) tutor certification. (CR)
EDUC-191BL  Tutor Training II Lab Consultant
27.00 hrs lab
Units: 0.50
Students will apply skills related to the concepts learned in the EDUC-191B theory course. Student tutors in this class will use techniques such as learning styles, changing study behaviors, and brain dominance theories when tutoring other students in the lab. Contributes to eligibility for College Reading and Learning Association (CRLA) tutor certification, accepted at more than 500 universities. (CR)

ENGINEERING  (ENGI)

Division:  Science, Engineering, and Mathematics
Dean:  Mike Holtzclaw
Executive Assistant:  Irene Benavidez
Location:  Fremont campus, Room 8203
Phone number:  (510) 659-6191

ENGI-101  Introduction to Engineering
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course explores the field of engineering and its different branches. It provides hands-on design projects including experimentation, team work, ethics, and the application of basic scientific principles to practical situations. (GC)

ENGI-114  How Technology Works
54.00 hrs lecture, 54.00 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
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: Eligible for ENGL-151B, MATH-151
Accepted For Credit: CSU & UC
This course covers the principles of graphic expression by means of technical sketching, and computer aided drafting. (GR)

ENGI-120  Engineering Mechanics – Statics
54.00 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
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: MATH-101B and PHYS-141
Advisory: Eligible for ENGL-151B and ENGL-163
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
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Cross-referenced Course: CNET-115
Accepted For Credit: CSU
Students who take this course will understand how scientific innovation can affect their lives either directly or indirectly. The course will teach students the principles of scientific methodology as it is applied to solving problems. The application of this scientific method will be used to navigate an abundance of technical information—to obtain the information, to understand the information, and to determine how to apply it. This course describes the functional hardware and software components of Automated Systems. Students will experience how scientific principles are applied by building and programming robots. The emphasis is for students to learn science by actually doing science. (GC)

ENGI-140  Materials Engineering
54.00 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)
**ENGINEERING TECHNOLOGY (ETEC)**

**Division:** Science, Engineering, and Mathematics  
**Dean:** Mike Holtzclaw  
**Executive Assistant:** Irene Benavidez  
**Location:** Fremont campus, Room 8203  
**Phone number:** (510) 659-6191

**ETEC-106**  
**Electronics for Technology**  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: Knowledge of basic algebra and trigonometry relationships  
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**  
4.50 hrs lecture, 13.50 hrs lab  
Units: 0.50  
Advisory: MATH-151  
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. (GR)

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**ENGLISH (ENGL)**

**Division:** Language and Communication  
**Dean:** Mark Lieu  
**Executive Assistant:** Kathleen Martinez  
**Location:** Fremont campus, Room HH-227  
**Phone number:** (510) 659-6173

**ENGL-101A**  
**Reading and Written Composition**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: ENGL-151B and ENGL-163; ENGL-151RW; or appropriate skill level demonstrated through the placement test process  
Accepted For Credit: CU & UC  
This course focuses on reading and writing of expository and argumentative works and introduction to research skills and documentation to develop students’ ability to think critically and advocate ideas forcefully and accurately. Students will increase practical fluency by developing sentence, paragraph, thesis, and essay writing skills. C-ID ENGL 100 (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. C-ID ENGL 120 (GR)

**ENGL-101C**  
**Critical Thinking and Composition**  
54.00 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. C-ID ENGL 105 (GR)

**ENGL-101D**  
**The Short Story**  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: 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**  
**Censorship and Literature**  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: JOUR-106  
Advisory: ENGL-101A  
Accepted For Credit: CU & UC  
This literature course focuses on the issues of censorship and obscenity. Selected works will be closely examined in an attempt to encourage students to formulate their own standards in this controversial area. (GC)

**ENGL-107**  
**Literature and Film**  
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CU & 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)

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**Did you know?**  
Ohlone was the first smoke-free college in the Bay Area and has set a trend for other colleges.
ENGL-109 The Graphic Novel  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course presents graphic novels and related literature genres by and 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, substance, and content in order to explore the genre of the graphic novel as an art form and literature 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  
54.00 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)

ENGL-111B Intermediate Creative Writing  
54.00 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, poetry, and a critical analysis of student's work. (GC)

ENGL-112 Modern Fiction  
54.00 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 writers such as Toni Morrison, Amy Tan, John Updike, Franz Kafka, and others. (GC)

ENGL-113 Poetry  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course examines traditional and contemporary poetry and poets. It includes discussion of sound, symbol, and spirit in poems by major poets like Shakespeare, Sylvia Plath, Wordsworth, Frost, Emily Dickinson, and others. (GR)

ENGL-114 World Mythology  
54.00 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. Focus is on literature. (GC)

ENGL-115 Women in Literature  
54.00 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, essays of British and American women writers past and present. (GC)

ENGL-117 Science Fiction and Fantasy  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
A sampling of science fiction and fantasy from traditional space voyages, sword and sorcery to more sophisticated, modern forms are studied in this course. (GC)

ENGL-118 Introduction to Shakespeare  
54.00 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-119 The Gothic Novel  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course examines selected gothic novels in English and American Literature in order to analyze and discuss their importance in the development of fiction. Course focus is on the gothic impulse in nineteenth century literature. Classics like Frankenstein, Dracula, Jane Eyre, and Dr. Jekyll and Mr. Hyde will be studied in connection with the preoccupations of the Romantic and Victorian eras. Vintage films will be shown. (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. C-ID ENGL 130 (GC)

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. C-ID ENGL 135 (GR)

ENGL-121 The Mystery: Unlocking Its Secrets  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
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-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. C-ID ENGL 160 (GR)

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. C-ID ENGL 165 (GR)

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 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 & UC
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, told through autobiography or memoir. (GC)

ENGL-131 Hip Hop/Slam Poetry
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
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
Advisory: ENGL-101A
Accepted For Credit: CSU
This course is to complete the ENGL-111A and ENGL-111B series for creative writing. Participants will be focusing on finishing their novels, memoirs, and/or updating their short stories, so that they may be published. (GC)

ENGL-151A Fundamentals of Composition
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: Concurrent enrollment in ENGL-162
This course focuses on 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
Prerequisite: ENGL-151A or appropriate skill level demonstrated through the placement test process
Advisory: Concurrent enrollment in ENGL-163 or ENGL-175
This course reviews 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
Prerequisite: ENGL-151A and ENGL-162
This course focuses on reading critically and writing well-developed, well-organized paragraphs and essays (expository, analytical, and argumentative). 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. (GC)
ENGL-162 Developmental Reading  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: ESL-184RW or Accuplacer assessment. Concurrent enrollment in ENGL-151A encouraged to enhance combined reading and writing skills.

English 162 is an introduction to college reading and study techniques. Students learn to analyze, annotate, and summarize a variety of college readings, including essays, textbooks chapters, news articles, and stories. 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  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: ENGL-162 or score between 71.5 and 87.5 on the reading portion of Accuplacer Assessment  
Advisory: Concurrent enrollment in ENGL-151B encouraged

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, reading rate, and written response to reading. Not applicable to associate degree. (GR)

ENGL-167 Critical and Analytical Reading  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ENGL-163, or eligible for ENGL 101A  
Accepted For Credit: CSU

A college-level reading course with emphasis on the development of critical analytical thinking. Focus is placed on the student's ability to understand inferential reading passages, including the ability to understand the author's point of view and to engage in textual analysis. In addition, the student should develop the ability to successfully critique college-level reading material by analyzing a variety of prose structures. (GC)

ENGL-172 Vocabulary Improvement  
54.00 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. Students will be asked to work 54 hours in the lab at their convenience. Materials are assigned after pretesting. Not applicable to associate degree. (GC)

ENGL-173 Improvement of Learning Techniques  
54.00 hrs lab  
Units: 1.00

ENGL-173 is for students who wish to improve learning skills through individualized practice of effective reading, studying, and listening. Students will be required to work 54 hours or complete three assigned programs in the lab at their convenience. Materials are assigned after pretesting. Not applicable to associate degree. (GC)

ENGL-174 Spelling Improvement  
54.00 hrs lab  
Units: 1.00

ENGL-174 is for students who wish to improve spelling skills through individualized practice. Students will be required to work 54 hours or complete three assigned programs in the lab at their convenience. Materials are assigned after pretesting. Not applicable to associate degree. (GC)

ENGL-175 Reading and Comprehension Improvement  
54.00 hrs lab  
Units: 1.00

ENGL-175 is for students who wish to improve reading comprehension through individualized work on specific weaknesses. Students will be required to work 54 hours or complete three assigned programs in the lab at their convenience. Materials are assigned after pretesting. Not applicable to associate degree. (GC)

ENGL-176 Rapid Reading  
54.00 hrs lab  
Units: 1.00  
Advisory: Ninth grade reading comprehension level

This course is for the student who has at least a ninth grade level of comprehension and who wishes to increase reading rate while maintaining or improving the level of comprehension. Students will be required to complete three programs equivalent to 54 hours at their convenience. Materials are assigned after pretesting. Not applicable to associate degree. (GC)

ENGL-365 Supervised Tutoring  
90.00 hrs lab  
Units: 0.00  
Prerequisite: Instructor or counselor referral

This course provides students with individualized tutoring. It assists students to develop a learning methodology in a subject. It includes diagnosis and consultation with tutorial coordinator and supervised tutoring by part-time instructional aides and/or student tutors. Not applicable to associate degree. Repeatable = 3 times (NG)

ENGLISH AS A SECOND LANGUAGE (ESL)  
Division: Language and Communication  
Dean: Mark Lieu  
Executive Assistant: Kathleen Martinez  
Location: Fremont campus, Room HH-227  
Phone number: (510) 659-6173

ESL-122 News and Current Events for ESL Students  
36.00 hrs lecture  
Units: 2.00  
Prerequisite: ESL-181RW, or placement into ESL-182RW or higher

Read and discuss news stories and current events. Simplified and standard newspapers will be used. Some writing will be required. Not applicable to associate degree. (GC)

ESL-150 English Pronunciation I  
54.00 hrs lecture  
Units: 3.00

Practice in basic pronunciation including the International Phonetic Alphabet (IPA), the recognition and production of the corresponding IPA sounds, stress in words, basic rhythm and intonation patterns, and the development of fluency in basic communicative contexts. Not applicable to associate degree. (GC)
ESL-181LS  Listening and Speaking, Level I
90.00 hrs lecture
Units: 5.00
Prerequisite: ESL-181LS and/or appropriate score on the ESL Placement Test
This course is designed to develop aural/oral skills in American English. It is open to students whose native language is not English. Not applicable to associate degree. (GC)

ESL-182LS  Listening and Speaking, Level II
90.00 hrs lecture
Units: 5.00
Prerequisite: ESL-182LS and/or appropriate score on the ESL Placement Test
This course is designed to develop advanced skills in listening and speaking with an emphasis on fluency and vocabulary development. Not applicable to associate degree. (GC)

ESL-183LS  Listening and Speaking, Level III
90.00 hrs lecture
Units: 5.00
Prerequisite: ESL-183LS and/or appropriate score on the ESL Placement Test
This course is designed to develop skills in American English for students whose native language is not English. There is practice in the skills of listening and speaking with an emphasis on fluency, comprehension, vocabulary development, verb tenses, beginning notetaking, and intermediate sentence structure. This is one of two combined skills courses in the third level of the ESL sequence. Not applicable to associate degree. (GC)

ESL-181RW  Reading and Writing, Level I
90.00 hrs lecture
Units: 5.00
Prerequisite: ESL-181RW and/or appropriate score on the ESL Placement Test
This course is designed to develop communication skills in American English. It 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-182RW  Reading and Writing, Level II
90.00 hrs lecture
Units: 5.00
Prerequisite: ESL-182RW and/or appropriate score on the ESL Placement Test
This course is designed to develop advanced skills in academic reading and writing, with some attention to grammar and vocabulary. It is the fourth level of the ESL sequence, and it is open to non-native speakers of English. Not applicable to associate degree. (GC)

ESL-183RW  Reading and Writing, Level III
90.00 hrs lecture
Units: 5.00
Prerequisite: ESL-183RW or placement through ESL Placement Test
This course is designed to develop reading, writing, and grammar skills in American English, with an emphasis on the academic English skills that are necessary for higher levels of college study. It is part of the third level of the ESL sequence, and it is open to students whose native language is not English. Not applicable to associate degree. (GC)

ESL-184RW  Reading and Writing, Level IV
72.00 hrs lecture
Units: 4.00
Prerequisite: ESL-183RW or appropriate score on the ESL Placement Test
This course is designed to develop advanced skills in academic reading and writing, with some attention to grammar and vocabulary. It is the fourth level of the ESL sequence, and it is open to non-native speakers of English. Not applicable to associate degree. (GC)

ESL-191  Grammar and Editing Skills
54.00 hrs lecture
Units: 3.00
Prerequisite: ESL-183RW or placement into ESL-184RW, ENGL-151A, or higher level English course
This course is designed to help non-native speakers of English improve their grammar and editing skills, but the course is open to native speakers as well. It is for students who have placed into or have completed any of the following courses: ESL-184RW, ENGL-151A, ENGL-151B, or ENGL-101A. Not applicable to associate degree. (GC)

ENVS-101  Natural Resource Management
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
Quantitative analysis of earth’s natural resources and the role of human populations in their use, sustainable development, and exploitation. Topics typically include the status and trends of resources such as topsoil degradation, agriculture, water, energy, and wildlife. Emphasis is on problem solving and computational methods applied to resource management problems. (GR)
ENVS-102  Environmental Law and Regulations  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course explores fundamental legal and policy issues in environmental law. Legislative, judicial, and administrative controls over public and private actions impacting on the environment are discussed. The course examines the statutory, administrative, and judicial decisions relating to the environment and the government actors, agencies, and citizens making these decisions. (GR)

ENVS-103  The Environment and Human Health  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course will explore 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 will dedicate themselves to bridging the understanding among scientific, policy, culture, and social perspectives and examine emerging strategies and solutions, from community-based monitoring to U.N. negotiations. (GR)

ENVS-104  Solar Photovoltaic Design and Installation  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
This course includes an introduction of solar photovoltaic system requirements, design, configurations, installation techniques, and their application in residential and commercial construction. Entry-level Certification Exam from NABCEP is an option. (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 will explain the origin and dimensions of the global energy problem and identify how energy issues and policies affect environmental quality, economic growth, and global politics. The course will focus on how energy conservation, energy efficiency, and renewable energy sources can be incorporated to create a sustainable society. (GR)

ENVS-106  Wind Energy: Design and Development  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
This course explores the role of wind as an energy source, as well as its social, economic, and political implications on the global energy supply. Surveys in historical wind energy application will be conducted, its reliability assessed, and environmental implications analyzed. Also studied will be wind energy applications and basic operating principles. The status of the industry’s future and renewable energy as a whole will be analyzed. (GR)

ENVS-107  Food, Culture, and the Environment  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
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: Eligible for ENGL-151B and ENGL-163  
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  
This course presents the sociological, economical, and sustainable perspective in the investigation and understanding of urban phenomena. Included are a wide range of topics that tap the spectrum of urban growth and development in both the developed and developing world. (GR)

ENVS-110  Climate Change: Science, The Environment, and Society  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
Causes and consequences of climate variability on a variety of timescales will be addressed, with a focus on evidence for natural and anthropogenic climate fluctuations. As a multidisciplinary course students will 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 will be stressed. (GR)
**ENVS-111 Advanced PV Design and Installation**
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ENVS-104  
Accepted For Credit: CSU  
The field of solar power is ever expanding with new technology, equipment, and installation techniques. This course will introduce students to new concepts, theories, and techniques in the field of solar PV design and installation. (GR)

**ENVS-122 Environmental GIS**
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Cross-referenced Course: GEOG-122  
Prerequisite: GEOG-121  
Accepted For Credit: CSU  
This course will apply skills and techniques that were introduced in Geography 121, Introduction to GIS. The course will allow the student to gain a further understanding of GIS concepts, technical issues, and applications using ArcView GIS to study various environmental themes. (GR)

**ENVS-142 Environmental Biology**
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: BIOL-142  
Advisory: Eligible for ENGL-151B and ENGL-163  
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)

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**FIRE TECHNOLOGY (FT)**

<table>
<thead>
<tr>
<th>Division:</th>
<th>Arts and Social Sciences</th>
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<tbody>
<tr>
<td>Dean:</td>
<td>Walter Birkedahl</td>
</tr>
<tr>
<td>Executive Assistant:</td>
<td>Sheila Holland</td>
</tr>
<tr>
<td>Location:</td>
<td>Fremont campus, Smith Center, Room 147</td>
</tr>
<tr>
<td>Phone number:</td>
<td>(510) 659-6216</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 colleges regionally to provide vocational 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) 270-6458.

The application and registration process is completed at the South Bay Regional Public Safety Training Consortium located at 4750 San Felipe Road 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) 270-6458.

**FT-225 Fire Fighter I Academy**
180.00 hrs lecture, 140.00 hrs lab  
Units: 8.00  
This academy includes instruction on basic fire fighting skills, laws, and regulations affecting the fire service. The course will provide the fire fighter with the knowledge and skills to safely perform, under minimal supervision, essential and advanced fire ground tasks, basic rescue operations, basic fire prevention and fire investigation tasks and to use, inspect, and maintain fire fighting and rescue equipment. Curriculum is intended to provide competent and comprehensive training in the field of Fire Technology as it relates to firefighters. Repeatable = 5 times (GR)

**FT-225A12 Fire Fighter I Academy**
180.00 hrs lecture, 140.40 hrs lab  
Units: 12.00  
This academy includes instruction on basic fire fighting skills, laws, and regulations affecting the fire service. The course will provide the fire fighter with the knowledge and skills to safely perform, under minimal supervision, essential and advanced fire ground tasks, basic rescue operations, basic fire prevention, and fire investigation tasks and to use, inspect, and maintain fire fighting and rescue equipment. Curriculum is intended to provide competent and comprehensive training in the field of Fire Technology as it relates to firefighters. Repeatable = 5 times (GR)

**FT-235A125 Basic Fire Academy Field Training Program (Internship)**
675.00 hrs lab  
Units: 12.50  
Prerequisite: Completion of California Accredited Firefighter I Academy, EMT-I course completion and certification  
This course meets the State of California Fire Marshall Firefighter I Certification requirement. Students will be assigned an internship site and work one-on-one with the assigned sworn member of the staff. The Field Intern Program introduces new graduates to personnel policies and procedures in relation to the agency for which they are working. In addition, Field Interns will be provided formal and informal training specific to the fire service and the day-to-day responsibilities and duties that are agency specific. The work experience program affords students the opportunity to apply their education to their tasks at work. By setting goals and accomplishing them students participate in an integral fashion in designing the unique curriculum which each work place creates. Students who are new to the work force benefit by learning to use their classroom skills in the real world setting. Repeatable = 5 times (GC)

**FT-240 Fire Incident Safety Officer**
9.00 hrs lecture, 54.00 hrs lab  
Units: 0.50  
Advisory: Safety Officer responsibility at emergency operation situations  
This course is designed for Safety Officers to identify and analyze safety concerns as they relate to all-hazards scene evaluations and communicate recommended solutions to the command authority. The course examines to role of the Safety Officer at emergency response situations with specific focus on operations within the Incident Command Systems. Repeatable = 5 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. Repeatable = 5 times (CR)

FT-242 CDF Fire Academy – Seasonal
54.00 hrs lecture, 26.00 hrs lab
Units: 2.00
This course is department policy for the entry level CDF Firefighter 1. 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 1. Students are required to meet the minimum standard as noted in the behavioral objective for each subject/topic. Candidates for qualification under this course must meet the basic requirements for employment as a CDF Firefighter 1. Repeatable = 5 times (GR)

FT-256 Continued Professional Training
8.00 hrs lecture, 16.00 hrs lab
Units: 0.50
This course provides training which is required by the California State Fire Marshall to keep students current with new equipment, policies, laws, and skills needed to be prepared in the line of duty. Repeatable = 5 times (CR)

FRENCH (FREN)

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. (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. It covers the fundamentals of French grammar in addition to reading, writing, and speaking the language. (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 that covers advanced grammar, oral and written composition, and the study of the French civilization. (GR)

GENDER AND WOMEN’S STUDIES (WS)

WS-101 Introduction to Gender and Women’s Studies
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course will focus on the questions and concepts in gender and women’s studies, the development of U.S. feminism, feminist theory, the globalization of feminism, and feminist concerns. Central to this course will be the ways in which place, race, ethnicity, sexuality, gender orientation, class, and age shape women’s experiences and the various socio-political meanings of gender. We will also examine the ways in which women have resisted inequality and effected social and political change. This course will be interdisciplinary in its approach, meaning that we will read feminist essays from a wide range of disciplines, including cultural studies, economics, history, philosophy, political theory, psychology, and sociology. In addition, we will conduct several small sociological experiments and observations, and we will watch excerpts of videos and films. C-ID SOCI 140 (GC)

WS-108 Gender Communication
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: SPCH-108
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
Examine the influence of gender and culture on communication in personal relationships, organizations, mass media, and society. (GR)

WS-115 Women in Literature
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: ENGL-115
Advisory: Eligibility for ENGL-101A
Accepted For Credit: CSU & UC
Students will read, discuss, and write about short stories, novels, poetry, drama, essays of British and American women writers past and present. (GC)
**WS-120 Women of the Western World**  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: IS-120  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course is an interdisciplinary course involving an overview of women’s traditional roles in the western world; the history of the feminist movement, past and present; and an attempt to define the changing role of women in a diverse contemporary American society. Cross-cultural information about women’s roles in other societies will be regularly introduced. (GC)

**WS-132 Introduction to US Muslim Women and Islam**  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course is an in depth study of American Muslim women: their roots, beliefs, and practices; social, spiritual, and economic status; discriminatory treatment in education and employment; political involvement and socialization; and a comparative study of Muslim women to pre-Islamic, ancient, and Western women. (GR)

**WS-150 Women’s Health Issues**  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: HLTH-150  
Advisory: Eligible for 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. Explore such topics as mental health, sexuality, parenting, nutrition, exercise, rape and battery, aging, occupational health, cultural diversity, and the effects on women in American culture. (GC)

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**GEOGRAPHY (GEOG)**

**GEOG-101 Physical Geography**  
54.00 hrs lecture, 54.00 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. (GC)

**GEOG-102 Cultural Geography**  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B and ENGL-163  
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. C-ID GEOG 120 (GR)

**GEOG-104 World Regional Geography**  
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-163  
Accepted For Credit: CSU & UC  
This 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. (GC)

**GEOG-105 California Geography**  
54.00 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. C-ID GEOG 140 (GR)
GEOG-121 Introduction to Geographic Information Systems (GIS)
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
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. C-ID GEOG 155 (GR)

GEOG-122 Environmental GIS
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Cross-referenced Course: ENVS-122
Prerequisite: GEOG-121
Accepted For Credit: CSU
This course will apply skills and techniques that were introduced in Geography 121, Introduction to GIS. The course will allow the student to gain a further understanding of GIS concepts, technical issues, and applications using ArcView GIS to study various environmental themes. (GR)

GEOG-123 Geographic Information Systems (GIS) Projects
54.00 hrs lab
Units: 1.00
Prerequisite: GEOG-121 and GEOG-122
Accepted For Credit: CSU
This course enables students to manage Geographical Information Systems (GIS) projects using knowledge acquired in GEOG-121 and GEOG-122. (GC)

GEOLOGY (GEOL)

Division: Science, Engineering, and Mathematics
Dean: Mike Holtzclaw
Executive Assistant: Irene Benavidez
Location: Fremont campus, Room 8203
Phone number: (510) 659-6191

GEOL-101 Introduction to Geology
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Accepted For Credit: CSU & UC
Geological processes that shape the earth and its history. Special attention is given to the global geological phenomena (earthquakes, volcanoes, plate tectonics), the concept of "deep" time, natural resources, and the interaction between humans and their environment. C-ID GEOL 101 (GC)

GEOL-102 Introduction to Oceanography
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
The study of the marine realm from the physical, biological, and cultural perspective including the origin of the oceans, plate tectonics, waves, tides, marine life, and human impact on the marine environment. Field trip includes a Bay cruise. (GC)

GEOL-102L Oceanography Laboratory
54.00 hrs lab
Units: 1.00
Corequisite: GEOL-102
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
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B and ENGL-163; GEOL-103L
Accepted For Credit: CSU & UC
This course is a journey through time that examines the history of life from its beginnings to the end of the last Ice Age, the changing Earth, evolution, mass extinctions, and fossils of dinosaurs and their relatives. Up to two Saturday field trips will be required. (GC)

GEOL-103L Earth History and Paleontology Laboratory
54.00 hrs lab
Units: 1.00
Corequisite: GEOL-103 or 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. C-ID GEOL 110 (GC)

GEOL-104L Historical Geology Laboratory
54.00 hrs lab
Units: 1.00
Corequisite: GEOL-104
Accepted For Credit: CSU
This course is the laboratory component to GEOL-104. The Changing Earth: Historical Geology. 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. C-ID GEOL 110L (GR)