MJC Courses

How to read **course** descriptions

Medical Assisting Courses (MDAST)

MDAST 320—INTRODUCTION TO MEDICAL ASSISTING **3 UNITS**

54 Lecture Hours

Formerly listed as: MDAST - 320: Intro. to Medical Assisting

Corequisite: Concurrent enrollment in MDAST 322 and MDAST 323.

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Medical Assisting Program.

Orientation to the medical office and the role of the medical assistant. Professional relations and communications, ethics, and legal responsibilities; history of medicine and community health care facilities. Field trips may be required. (A-F Only) Lecture.

MDAST 321—MEDICAL TERMINOLOGY **3 UNITS**

54 Lecture Hours

Emphasizing logical and rational understanding of word parts. Covers medical terms organized according to body systems, including fundamental understanding of basic anatomy, function, diseases, and surgeries of each body system. (A-F Only) Lecture. **Transfer:** (CC OFTEC 50)

MDAST 322—MEDICAL ASSISTING ADMINISTRATIVE PROCEDURES **3.5 UNITS**

36 Lecture Hours, 81 Lab Hours

Formerly listed as: MDAST - 322: Medical Assisting Administrative

Corequisite: Concurrent enrollment in MDAST 320 and MDAST 323.

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Medical Assisting Program.

Medical Assisting Administrative procedures including financial record keeping, insurance claims, banking functions, payroll and medical records. Students receive training in completing the above procedures manually and by computer. Field trips may be required. (A-F Only) Lecture/Lab.

MDAST 323—MEDICAL ASSISTING CLINICAL PROCEDURES **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Corequisite: Concurrent enrollment in MDAST 322 and MDAST 320.

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Medical Assisting Program.

Clinical medical assisting skills, which pertain to preparing the patient for examination and assisting patient and physician during patient examination and treatment. The assistant must anticipate the physician's needs as to the type of examination, the specific equipment needed, and the extent of assistance required by the patient. This requires judgment based on a reasonable understanding of physical examinations, the methods and equipment used, and the related role of the medical assistant. Materials Fee Required. (A-F Only) Lecture/Lab.

MDAST 324—INTRODUCTION TO DISEASE AND PHARMACOLOGY **4 UNITS**

63 Lecture Hours, 27 Lab Hours

Formerly listed as: MDAST - 324: Intro to Diseases/Pharmacology

Prerequisite: Satisfactory completion of MDAST 320 and MDAST 322 and MDAST 323.

Corequisite: Concurrent enrollment in MDAST 325 and MDAST 326. Medical Terminology related to the human body in health and disease.

Pathogenesis and discussion of representative diseases; signs and symptoms of many major diseases and basic drugs used in treatment. (A-F Only) Lecture/Lab.

MDAST 325—MEDICAL ASSISTING LABORATORY PROCEDURES **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Formerly listed as: MDAST - 325: Lab Procedures

Prerequisite: Satisfactory completion of MDAST 320 and MDAST 322 and MDAST 323.

Corequisite: Concurrent enrollment in MDAST 324 and MDAST 326.

Introduction to laboratory procedures necessary to aid the physician. Includes patient preparation for diagnostic studies, purposes, techniques, and recording of procedures commonly performed. Field trips may be required. (A-F Only) Lecture/Lab.

MDAST 326—MEDICAL ASSISTING PRACTICUM **7 UNITS**

36 Lecture Hours, 270 Lab Hours

Formerly listed as: MDAST - 326: Externship

Prerequisite: Satisfactory completion of MDAST 320 and MDAST 322 and MDAST 323.

Corequisite: Concurrent enrollment in MDAST 324 and MDAST 325.

Practicum portion of the program consists of two 8-week rotations in which students apply knowledge in performing administrative and clinical procedures. Students also receive training in taking the national certification exam and seeking employment. (A-F Only) Lecture/Lab.

Meteorology Courses (METEO)

METEO 161 INTRODUCTION TO METEOROLOGY **4 UNITS**

54 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EASCI 161 and satisfactorily complete MATH 70.

Introduction to atmospheric structure, weather monitoring techniques, solar radiation, thermodynamics, air pressure, humidity, cloud formation, wind patterns, planetary circulation patterns, storms and severe weather (including thunderstorms, tornadoes, and hurricanes), and the causes and consequences of climate and climate change. Lab activities emphasize gathering and analysis of meteorological data (both archived and real-time) to understand and predict weather events. Field trips may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

Microbiology Courses (MICRO)

MICRO 101—MICROBIOLOGY **4 UNITS**

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of BIO 116 or BIO 101 or BIO 111 and CHEM 143.

Includes the study of microorganisms, microbial metabolism, genetics, and varieties; immunity, infections, and antimicrobials. Intended mainly for student entering the health professions. Field trips may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) (CC BIOL 65) **General Education**: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

Course Offered

Course Prefix and Number

Course Title

Subheadings will contain one or more of the following:

- **Prerequisite** (Prior course work required before you may enroll)
- **"Corequisite" or "Concurrent enrollment."** (Course to be taken concurrently if not prior to the listed course)
- **"Formerly listed as "** (Previous course prefix and/or number, or title)
- **"Also offered as"** (Course offered in another division)
- **Recommended for Success** (Course, ability, or skill level strongly advised for success)
- **Non degree course** (Units do not apply toward degree)

Unit Value

Course Description

Lecture and/or Laboratory course format.

Hours arranged (Laboratory time arranged on individual basis)

(A-F Only) Letter grade only for course completion.

(P/NP Only) Pass/No Pass only, no letter grade given

(A-F or P/NP) Option to complete course for letter grade or on a Pass/No Pass basis

Parentheses will contain one or more of the following:

Transfer: Indicates the transferability of a course to California State University (CSU) or University of California (UC), and/or whether or not the course has a C-ID, or is equivalent with a Columbia College course(CC SPCOM 6).

General Education: Identifies whether or not a course fulfills a General Education requirement area specified in one of the three General Education patterns.

Programs, awards, and courses are listed in alphabetical order from A-Z. The awards listed under each program are listed by the type of award in this order: AST, AAT, AS, AA, CERT, SR.

Administration of Justice Courses (ADJU)

ADJU 144—COMMUNITY AGENCY SERVICE **1 UNIT**

18 Lecture Hours

Formerly listed as ADJU 145

Prerequisite: Satisfactory completion of ADJU 201.

Corequisite: Concurrent enrollment in ADJU 145.

Analysis of field experiences of students concurrently enrolled in ADJU 145A, 145B, 145C, or 145D. Class time is devoted to sharing and evaluating problems that develop, and ways of resolving them will be sought by class members. Field trips might be required.(A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

ADJU 145ABCD—COMMUNITY AGENCY SERVICE FIELDWORK **1- 4 UNITS**

A=18 Discussion Hours, B=36 Discussion Hours, C=54 Discussion Hours,

D=72 Discussion Hours

Prerequisite: Satisfactory completion of ADJU 201

Concurrent enrollment: ADJU 145

Supervised field experience in a variety of community social agencies. Weekly lab: 75 Hours of work experience or 60 Hours of volunteerism in a community service/social agency are required for every unit earned each semester. Discussion. **Transfer**: (CSU)

ADJU 201—INTRODUCTION TO ADMINISTRATION OF JUSTICE **3 UNITS**

54 Lecture Hours

Formerly listed as: ADJU 201: Intro to Administration of Justice

Exploration of the history and philosophy of the administration of justice system in America including the intricate workings of the police, the courts and corrections systems. Focus is placed on examining crime measurement, theoretical explanations of crime, responses to crime, punishment, components of the system and the current challenges to the system. Students are introduced to the origins and development of criminal law, legal process and sentencing, incarceration policies and ethics in the administration of justice field. Field trips might be required. Not repeatable. (A-F Only) Lecture. **Transfer**: (CSU, UC) (C-ID: AJ 110) **General Education**: (MJC-GE: B) (CSU-GE: D8) (IGETC: 4H)

ADJU 202—PRINCIPLES/PROCEDURES OF JUSTICE SYSTEM **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.

This course provides an examination and analysis of due process in a criminal proceeding from initial contact with law enforcement through trial, sentencing and appeal utilizing statutory laws, state and constitutional law precedents, and the U.S. bill of rights. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: AJ 122) **General Education**: (MJC-GE: B)

ADJU 203—CONCEPTS OF CRIMINAL LAW **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201 and satisfactorily complete ADJU 202.

Historical development, philosophy of law and constitutional provisions: definitions, classification of crime and their application to administration of justice system; legal research, case law, methodology and concepts of law as a social force. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: AJ 120) **General Education**: (MJC-GE: B) (CSU-GE: D0) (IGETC: 4J)

ADJU 204—LEGAL ASPECTS OF EVIDENCE **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201 and satisfactorily complete ADJU 202 and satisfactorily complete ADJU 203.

Origin, development, philosophy, and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds of degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU) (C-ID: AJ 124)

ADJU 205—COMMUNITY RELATIONS **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.

Roles of administration of justice practitioners and agencies. Inter relationships and role expectations among the various agencies and the public. Principal emphasis on the professional image of administration of justice system and development of positive relationship between system members and the public. Field trips might be required.(A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC)

ADJU 210—COMMUNICATIONS IN CRIMINAL JUSTICE **3 UNITS**

54 Lecture Hours

Survey of the existing policies and principles affecting report writing in American\ criminal justice, emphasizing preparation, oral presentation and thoroughness necessary for judicial acceptance. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

ADJU 212—CRIMINAL INVESTIGATION **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.

Fundamentals of investigation, crime scene search and recording, collection and preservation of physical evidence, technology, modus operandi, sources of information, interviews and interrogation, follow-up and case preparation. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU) (C-ID: AJ 140)

ADJU 213—PATROL PROCEDURES **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.

Responsibilities, techniques, and methods of police patrol. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

ADJU 215—INTRODUCTION TO FIREARMS 3 UNITS

54 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who have submitted a Live Scan Application to the State of California Department of Justice for fingerprint clearance. This course is restricted under California Penal Code Section 12021, course requires handling and possessing of firearms. Convicted felons, persons addicted to any narcotic or convicted of any offense involving the violent use of a firearm are not allowed to enroll in the course based on Penal Code Section 12021.

Historical evolution, ownership evaluation, moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms; demonstrate basic marksmanship and instruction in use of firearms. Students must provide own ammunition. The instructor reserves the right to remove a student from the firing range due to safety violation. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

ADJU 216—ADVANCED FIREARMS AND RANGE APPLICATION 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ADJU 215.

Limitations on Enrollment: Enrollment limited to students who have submitted a Live Scan Application to the State of California Department of Justice for fingerprint clearance. This course is restricted under California

Penal Code Section 29800; course requires handling and possessing of firearms. Convicted felons, persons addicted to any narcotic or convicted of any offense involving the violent use of a firearm are not allowed to enroll in the course based on Penal Code Section 29800.

A continuation of ADJU 215. In-depth review of legal aspects of firearms. Tactical analysis and decision making skill building. Range firing of various weapons. Students must provide own ammunition. The instructor reserves the right to remove a student from the firing range due to a safety violation. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

ADJU 217—SUBSTANCE ABUSE 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201 and satisfactorily complete ADJU 202.

Basic understanding of controlled substances, including identification, physiological effects, testing, and use detection, methods of enforcement and investigation, applicable laws controlling use, treatment processes, and prevention. Field trips are not required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU) **General Education**: (MJC-GE: B, E)(CSU-GE:E)

ADJU 219—CORRECTIONS FIREARMS TRAINING 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ADJU 215.

Limitation on Enrollment:: Enrollment limited to students who have submitted a Live Scan Application to the State of California Department of Justice for fingerprint clearance. This course is restricted under California Penal Code Section 12021, course requires handling and possessing of firearms. Convicted felons, persons addicted to any narcotic or convicted of any offense involving the violent use of a firearm are not allowed to enroll in the course based on Penal Code Section 12021. Students are required to pass clearance from Dept. of Justice before they may legally handle firearms.

Laws, policies, and ethical considerations with specialized training and application in weaponry used by correctional agencies. Range firing of rifles, shotguns, and handguns. Students must provide their own ammunition. This course is restricted under state and federal laws. The instructor reserves the right to remove a student from the firing range due to a safety violation. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer:** (CSU)

ADJU 222—PROFILING TERRORISM 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.

Discussion of prominent theories on terrorism with a focus on domestic and international terrorism threats, and fundamental security issues resulting from terrorism. Analysis of the social-historical origins of terrorism; criminal, legal, and social responses to terrorism; at-risk populations; prevention; and intervention strategies. Field trips are not required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

ADJU 232—JUVENILE JUSTICE PROCEDURES 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201

History of juvenile court decisions in the United States. Theories of delinquency. Identify the differences between the adult and juvenile justice systems. Discussion of status offenses committed by children in contrast to juvenile delinquent acts. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU) (C-ID: AJ 220)

ADJU 234—CRIME CAUSATION 3 UNITS

54 Lecture Hours

Principal theories commonly utilized in identifying causes of criminality. Emphasis on evidence and logic of certain theoretical positions common to the field of criminology. Field trips are not required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

ADJU 235—INTRODUCTION TO CORRECTIONS 3 UNITS

54 Lecture Hours

Introduction to corrections is designed to give the student an understanding of the concepts of criminal parole, probation and the correctional system. The course covers historical development of correctional processes, current trends, and future directions of the correctional field. Students will examine local, state and federal correctional systems. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: AJ 200) **General Education**: (MJC-GE: B)

ADJU 236—CORRECTIONAL LAW 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 235.

Overview of the Constitutional provisions and definitions of laws relating to the corrections component of the Criminal Justice System. Emphasis on the legal aspects concerning adult offenders and correctional personnel within the Prison System. The laws will entail Federal, State, and Local jurisdictions. Field trips maybe required. Lecture. Field trips might be required. (A-F Only) Not repeatable. **Transfer**: (CSU)

ADJU 243—DOMESTIC VIOLENCE CRISIS INTERVENTION 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.

Domestic violence as a pervasive and significant social issue requiring both prevention and intervention. Social-historical roots of family violence, criminal, legal, and social response to violence, at-risk populations, prevention, and intervention strategies. Field trips are not required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

ADJU 351—ELEMENTS OF SUPERVISION IN PUBLIC SAFETY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.

The nature of effective leadership and the functions of supervisors and managers in organizations, with an emphasis on organizations within the criminal justice system. The skills and techniques of effective leadership, management and supervision will be examined and applied in terms of attaining maximum results through teamwork and the cooperative efforts of others. Field trips are not required. Lecture. Not repeatable. (A-F or P/ NP)

Agricultural Economics Courses (AGEC)

AGEC 50—SURVEY OF AGRICULTURAL ECONOMICS 3 UNITS

36 Lecture Hours, 54 Lab Hours

A preparatory course designed to further agricultural business knowledge and prepare for entry level employment and further agricultural business course pursuits. Field trips required. Lecture/Laboratory. Not repeatable.

AGEC 55—PREPARATORY AGRICULTURE COMPUTER APPLICATIONS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as: AGEC - 55: Preparatory Agriculture Computer Applications

Introduction to computer use in the workplace, emphasizing agribusiness situations, use of computer applications software, including word processors, spreadsheets, and databases. Suitable for those with no previous computer experience. (A-F or P/NP) Lecture/Lab. Not repeatable.

AGEC 200 —AGRICULTURAL ACCOUNTING AND ANALYSIS 3 UNITS

54 Lecture Hours

Study of the principals of agricultural accounting systems and types of records, how to compute and use measures of earnings and costs of production to improve efficiency in agricultural operations. Field trips are not required. Not repeatable. (A-F Only) **Transfer**: (CSU)

AGEC 208—INTRODUCTION TO INTERNATIONAL BUSINESS 3 UNITS

54 Lecture Hours

Also offered as: BUSAD 208

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 248.

A comprehensive overview of international business. Offers a global perspective of international trade, international marketing, international accounting, the operation of multinational companies, economic theories and forces, international organizations and the political and cultural impact of world trade. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

AGEC 209—IMPORT/EXPORT FUNDAMENTALS 3 UNITS

54 Lecture Hours

Also offered as: BUSAD 209: Import/Export Fundamentals

Overview of processes and procedures involved in importing and exporting products and services. Special emphasis on finance and financial documentation. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

AGEC 210—ELEMENTS OF AGRICULTURAL ECONOMICS 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have satisfactorily completed MATH 70 or qualification by MJC assessment process.

The place of agriculture and agri-business in the economic system; basic economic concepts, and problems of agriculture; supply and marketing problems, factors of production; state and federal agriculture programs affecting agriculture's economic position. Field trips might be required.(A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D2) (IGETC: 4B)

AGEC 215—AGRICULTURAL MARKETING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Structure and framework of agricultural marketing, history and present trends; marketing principles, policies, channels, institutions, regulatory agencies, cooperative marketing orders, cyclical and seasonal price variations, integration, and foreign and domestic trade; consideration of specific marketing problems affecting area commodities. Field trips required. Lecture/Lab. (A-F Only) (Spring) Not repeatable. **Transfer**: (CSU)

AGEC 220—AGRICULTURAL BUSINESS MANAGEMENT 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AGEC 200, AG 285, MATH 70 and one AG production class.

Principles of agricultural management, farm organization and measures of earnings in determining production efficiency; property reports. Study and reorganization of a given farm with application of above principles; term report and field laboratories required. Field trips are required. (A-F Only) Lecture/ Lab. Not repeatable. **Transfer**: (CSU)

AGEC 225—AGRICULTURE COMPUTER APPLICATIONS 3 UNITS

54 Lecture Hours

Computer use in the agribusiness work place, with emphasis on using software to solve agribusiness accounting problems, record keeping, creating sales presentations, and authoring business reports. Field trips might be required.(A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: D2) (C-ID: AG-AB 108)

AGEC 280—AGRICULTURAL SALES AND SERVICE 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete three agriculture courses (preferably two or more agriculture production courses and one or more agribusiness courses).

The study of principles and practices of the selling process: selling strategies and approaches, why and how people buy, prospecting territory management and customer service. Self-management, communication and interpersonal skills necessary in developing managerial abilities, leadership qualities and facilitating teamwork within the agribusiness sector. Provides students with in depth understanding of the factors and influences that affect the agribusiness industry. Field trips are required. Not repeatable. Lec/Lab. (A-F Only) **Transfer**: (CSU)

Agriculture Mechanics Courses (AGM)

AGM 50—PREPARATION FOR MECHANICAL TECHNOLOGY 3 UNITS

36 Lecture Hours, 54 Lab Hours

Preparation in woodworking, cold metal, forging, plumbing, and welding as related to farm maintenance and repair. Designed for agricultural students who need development in basic mechanical skills. Students are required to have safety glasses. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable.

AGM 200—INTRODUCTION TO MECHANICAL TECHNOLOGY 3 UNITS

36 Lecture Hours, 54 Lab Hours

Basics in woodworking, cold metal, electrical wiring, plumbing, masonry and welding as related to agriculture maintenance and repair. Designed for students who seek to develop basic mechanical skills. Students are required to have safety glasses. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 210—AGRICULTURAL WELDING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Introduction and basic instruction in various welding and cutting methods to include: SMAW, GMAW, OAW and GTAW welding methods. Course work will include equipment selection, setup and operation. Students are required to have safety glasses. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 211—ADVANCED AGRICULTURAL WELDING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of AGM 210

Advanced welding and other metallurgical techniques such as pipe fitting, hard facing, GMAW and GTAW methods. Course will include welding applications for both ferrous and non ferrous materials. Students are required to have safety glasses. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 212—MECHANICAL SYSTEMS DESIGN & EVALUATION 1 3 UNITS

36 Lecture Hours, 54 Lab Hours

Introduction to elements of agriculture mechanical system design and evaluation. Mechanical systems include fluid power and mechanical drive systems, structural design as well as development of evaluation procedures to ensure optimum performance. Introduction to computer evaluation and 3D modeling software will also be included. Field trips might be required. Two completions allowed. (A-F Only) Lecture/Lab. **Transfer**: (CSU)

AGM 213—MECH. SYSTEMS DESIGN & EVALUATION 2 3 UNITS

36 Lecture Hours, 54 Lab Hours

Advanced elements of agriculture mechanical system design and evaluation. Emphasis will be placed on mechanical and electronic data acquisition and evaluation of performance. The use of data logging equipment and computer analysis will be included. Field trips might be required. Two completions allowed. (A-F Only) Lecture/Lab. **Transfer**: (CSU)

AGM 214—EQUIPMENT SERVICE AND SAFETY 1 UNIT

9 Lecture Hours, 27 Lab Hours

Safe tractor, forklift, and machinery operation, service and key safety practices found in shops. Safe handling of chemicals used in farming and fire safety. A job skills course for students involved in farming practices on college property. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 215—MACHINERY MANAGEMENT 3 UNITS

36 Lecture Hours, 54 Lab Hours

Designed for future and current equipment managers/owners to understand the selection, maintenance, and replacement of tractors and machinery, used in the agriculture, on-highway truck, and heavy equipment industries. Assessing needs and developing sound management practices for modern equipment operators. A focus on practical knowledge and "hands-on" skills is a priority. Materials fee required. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 220—INDUSTRIAL/AGRICULTURAL MACHINERY 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AGEC 280.

Operation, selection and care of industrial and agricultural machinery common to this area. The calibration, repair, adjustment and hitching of machinery. Principles of power and its transmission as related to machinery. Semester notebook required. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 221—EQUIPMENT DIAGNOSIS & REPAIR 3 UNITS

36 Lecture Hours, 54 Lab Hours

Emphasis on modern diagnostic techniques and equipment repair used in the agriculture, on-highway truck, and heavy equipment industries. Designed for the diesel equipment technician who wants to become more proficient in advanced diesel engine diagnosis and repair. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 225—PRINCIPLES OF ELECTRICAL WIRING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Fundamental principles and applications of electrical energy used on both residential, industrial and agricultural situations including designing, planning and implementation of electrical circuits. Materials fee required. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 230—FIELD SURVEYING 2 UNITS

18 Lecture Hours, 54 Lab Hours

Formerly also listed as ENGR-230: Field Surveying

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AG 280 or satisfactorily complete MATH 70.

Selection, care and checking of tapes, levels, GPS and laser systems. Introduction to total station care and use. Field observations, note taking and office computations; use of surveying instruments and equipment for land measurement and mapping; practice in differential, profile and contour leveling; horizontal angles, traverses, and construction problems used in public lands surveying, legal descriptions and county records. Materials fee required. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 235—IRRIGATION AND DRAINAGE 3 UNITS

36 Lecture Hours, 54 Lab Hours

Irrigation and drainage problems that focus on soil-plant-water relationships, application scheduling, evapotranspiration, and efficiency. Introduction to irrigation equipment and technology to include water measurement, soil moisture measurement, pumping and delivery systems, and various irrigation methods. California water infrastructure, water budget, water rights and legislation. Field trips are required. Not repeatable. (A-F Only) Lec/Lab. **Transfer**: (CSU)

AGM 236—ADVANCED IRRIGATION AND DRAINAGE 3 UNITS

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of AGM 235.

Advanced management of irrigation systems. Emphasis placed on plant-soil-water relationships in reference to application, scheduling, water infiltration rates and depth, drainage, salinity measurement and management, chemigation, and climate control. Field trips are required. Not repeatable. (A-F Only) Lec/Lab. **Transfer**: (CSU)

AGM 237—IRRIGATION WELLS, PUMPS, AND DRIVE SYSTEMS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Management and evaluation of irrigation wells, pumps and their drive systems. Emphasis is placed on system hydraulics, pump curves and selection, efficient operation, management, energy conservation, setup, maintenance and repair. Field trips are required. Not repeatable. (A-F Only) Lec/Lab. **Transfer**: (CSU)

AGM 238—IRRIGATION SYSTEM DESIGN 3 UNITS

36 Lecture Hours, 54 Lab Hours

Irrigation system design fundamentals covering micro, sprinkler, surface and sub-surface applications. Topics include on-farm supply systems, piping and discharge as well as system efficiency and cost. AutoCAD and other common design software will be introduced and utilized. Course will include a semester design project. Field trips are required. Not repeatable. (A-F Only) Lec/Lab. **Transfer**: (CSU)

AGM 239—IRRIGATION SYSTEM INSTALLATION AND MAINTENANCE 3 UNITS

36 Lecture Hours, 54 Lab Hours

Fundamentals of irrigation system installation and maintenance to include sprinkler, micro, surface and sub-surface applications. Topics include pumping and delivery systems, piping, flow control, equipment setup and testing. Emphasis will be placed on cost effective installation and maintenance requirements for efficient operation. Course will include a semester installation project. Field trips are required. Not repeatable. (A-F Only) Lec/Lab. **Transfer**: (CSU)

AGM 240—TRUCK AND TRACTOR POWER TRAINS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Operation and repair of truck and tractor transmissions and power Transfer systems. Topics to include diagnostics and repair of transmissions, clutches and differentials. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 241—DIESEL ENGINE PRINCIPLES 3 UNITS

27 Lecture Hours, 81 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AGM 289 or satisfactorily complete AUTEC 289.

The operation and repair of modern diesel engines. Principles and theories are studied by running, testing, diagnosing, disassembling and reassembling components, systems, and engines. Materials fee required. Field trips are required. (AF Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 242—DIESEL ENGINE OVERHAUL 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AGM 241.

This course includes principles of design and construction of heavy duty engines used in the agriculture, construction, and trucking industries. Principles and theories are studied by running, testing, diagnosis, disassembling, and reassembling components, systems, and engines. Field trips are not required. (A-For P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 243—HEAVY MACHINERY ELECTRICAL SYSTEMS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AGM 241.

Designed for the entry level heavy duty mechanic interested in heavy machinery and/or on-highway truck. A strong understanding of basic and advanced electrical systems of heavy machinery will be generated. Electrical system troubleshooting, diagnosis and repair with the aid of technical information and electrical test equipment will be the focus. The class will also provide necessary electrical theory and background review for more advanced electrical classes. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 245—DIESEL ENGINE FUEL SYSTEMS & DIAGNOSIS 3 UNITS

36 Lecture Hours, 54 Lab Hours

The study of common types of diesel fuel injection systems. Design and theory of operation of distributor type, in-line type, as well as electronically controlled systems

Testing and diagnostic procedures for various fuel systems is a major component of the course. Service and adjustments of injectors, nozzles, and governors will also be covered. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 251—FARM CONSTRUCTION AND MATERIALS 4 UNITS

54 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AGM 210.

Types, costs and characteristics of construction materials; their use in farm equipment, and buildings. Structural requirements, cost factors, safe loads, animal and equipment requirements, operation and labor efficiency, adaptability to the community. Designing and building projects in the shop and group field work. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 262—HYDRAULICS/PNEUMATICS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Principles and practices of hydraulics/pneumatics as used in industry. Study of the different applications and management of hydraulics/pneumatics systems for efficient and cost effective use. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 280—MOBILE MACHINERY HYDRAULIC SYSTEMS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Fundamental principles and practices of hydraulic circuitry as applied to mobile hydraulic systems in the Agriculture, Heavy Machinery, and on-Highway truck industries. Emphasis in system and component design and operation as applied to diagnosis and repair of hydraulic systems. Materials fee required. Field trips are required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AGM 289—PRINCIPLES OF POWER MECHANICS/SM ENGINES 3 UNITS

36 Lecture Hours, 54 Lab Hours

Also offered as: AUTEC 289: Principles of Power Mechanics/Small Engines

Introduction to the operation, construction, maintenance, repair and adjustments of two and four-stroke engines. Designed for persons without prior experience in engine repair. Experienced technicians will also benefit. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

Agriculture General Courses (AGGE)

AGGE 145—PARLIAMENTARY PROCEDURE 1 UNIT

Also offered as: COMM 145: Parliamentary Procedure

18 Lecture Hours

Introduction to Parliamentary Procedure. Preparing for and participating in meetings as a member, officer and chairperson. Rank and use of motions. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

AGGE 146—AGRICULTURE, ENVIRONMENT AND SOCIETY 3 UNITS

54 Lecture Hours

The sociology of agriculture presented through an examination of relationships between societies and their environments, economics, and agriculture. Emphasis on the analysis of agriculture's use of technology and the corresponding impact on the environment, economy and society. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable.

Transfer: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D7)

AGGE 150—SUSTAINABLE PRODUCTION SYSTEMS 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to complete more than two agricultural laboratory courses.

Fundamental concepts and processes of sustainable agricultural systems, with emphasis on integrating agricultural activities with ecological principles. Field trips might be required.(A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC)

AGGE 191XAB—AGRICULTURE FIELD STUDIES 0.5-2 UNITS

X=9 Lecture Hours, A=18 Lecture Hours, B=36 Lecture Hours

Examination of agriculture principles and methods through extended field studies at selected sites in the United States and abroad. Gain knowledge of and appreciation for the value of agriculture and agriculture education in other states and countries as a means of developing extended agriculture relationships. Field trips are required. Lecture. Not repeatable. (A-F or P/NP) **Transfer**: (CSU)

AGGE 320—EVALUATION OF AGRICULTURAL PRODUCTS 1 UNIT

18 Lecture Hours

Evaluation skills in selecting animal, plant, mechanical, and business products. Field trips required. Lecture. Materials fee required. Not repeatable. (A-F Only)

Agriculture Vocational & Technical Courses (AG)

For degrees and certificates that can be earned in Agriculture: Vocational & Technical, see the Agriculture and Environmental Sciences Division on page 115. Vocational Agriculture courses are designed to prepare for occupational entry into skilled or semi-professional fields of agriculture. Technical Agriculture courses are designed to prepare for occupational entry into the technical fields of agriculture.

AG 101—LEADERSHIP IN AGRICULTURE B 2 UNITS

36 Lecture Hours

Formerly listed as: AG - 100AB: Leadership in Agriculture

Lecture and supervised activities relating to student participation in agricultural competitions, judging contests, livestock exhibitions, recruitment programs, award and scholarship applications, and youth activity planning. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU) **Local Requirement**: (Activities)

AG 115—INTRODUCTION TO AGRICULTURAL EDUCATION & CAREERS 1 UNIT

18 Lecture Hours

Introduction to educational and agricultural employment opportunities. Includes portfolio and educational plan development and curriculum requirements that pertain to educational goals as they relate to agriculture majors. Assists students in setting goals and developing skills necessary for life-long success in obtaining, maintaining, and advancing in agriculture careers. Current events that impact agriculture and society will be discussed. Field trips are not required. Not repeatable. (A-F Only) Lecture. **Transfer**: (CSU) **Local Requirement**: (Guidance)

AG 120—INTRODUCTION TO AGRICULTURE EDUCATION 2 UNITS

36 Lecture Hours

Overview of agricultural education and agricultural education programs from a teaching perspective including goals and purposes; kinds of classes, types of programs, and qualifications essential to successful agriculture teaching. Field trips might be required. Not repeatable. (A-F Only) Lecture. **Transfer**: (CSU)

AG 130—AGRICULTURE EDUCATION EARLY FIELD EXPERIENCE 2 UNITS

18 Lecture Hours, 54 Lab Hours

Creates awareness of opportunities for prospective agriculture teachers through observation, participation in the field and through analysis of field experiences. Students will be expected to complete 20 Hours of observation/field activities. The off -campus activities shall be supervised by the course instructor and shall take place in an approved agriculture department. Field trips required. Lecture/Laboratory. (A-F Only). Not repeatable. **Transfer**: (CSU)

AG 249—AGRICULTURE INTERNSHIP 2 UNITS

108 Lab Hours

Limitations on Enrollment: Enrollment limited to students who receive instructor approval for the purpose of identifying an internship site and outlining learning objectives for the internship.

Designed for agriculture majors who wish to combine classroom experience with and expansion of skills of knowledge acquired at an internship site on a paid or volunteer basis. Occupational Cooperative work experience must directly relate to the student's area of study. Credit may be accrued at the rate of one to 8 units per semester for a total of sixteen units. Additionally, students must work 75 paid hours or 60 non-paid hours per unit earned. Field trips are not required. (A-F Only) Lab. **Transfer**: (CSU)

AG 259ABCD—AGRICULTURAL WORK EXPERIENCE 1-4 UNITS

Formerly listed as: AG - 349ABCD: Work Experience Agriculture - Supervised Practice A= 60.00-75.00 Lab Hours, B= 120.00-150.00 Lab Hours, C= 180.00-225.00 Lab Hours, D= 240.00-300.00 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be following an agriculture major course of study.

Designed to give the student occupational learning opportunities and career awareness. This is accomplished through employment(paid or volunteer), providing learning related to the student's educational or occupational goal. The student's employer must agree to participate by assisting in developing measurable learning objectives, verifying hours worked, meeting with the designated college instructor and providing an evaluation of the student's learning objectives. Students may earn a maximum of 4 units per semester. Students must work 75 hours for each unit of paid work experience credit. If a student is performing non-paid volunteer work, one unit may be earned for each 60 hours of training. Field trips are not required. Not repeatable. Lab. (A-F Only) **Transfer**: (CSU)

AG 280—AGRICULTURAL COMPUTATIONS 3 UNITS

54 Lecture Hours

Practical problems in production agriculture, agriculture mechanics, agriculture business, and natural resources. Includes problems in algebra, geometry, money and interest, equipment calibration, metrics, and graphics. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

AG 285 — AGRICULTURAL COMMUNICATIONS 3 UNITS

54 Lecture Hours

Fundamentals of agricultural communication, including written, electronic, graphic, and oral communication methodologies. Field trips are required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

AG 305—SUPERVISION IN AGRICULTURE 2 UNITS

18 Lecture Hours, 54 Lab Hours

Training for student interns/unit managers of MJC agricultural farm facilities in the principles of supervision, demonstrating practical skill application, handling personnel problems, instructing new personnel on job performance, analyzing job efficiency and making management decisions. (Designed for West Campus Student Interns and Cooperative Association of States for Scholarships [CASS] International Students. Lec/ Lab. Not repeatable. (A-F Only)

AG 376—BASIC SCIENCE AND LABORATORY TECHNIQUES 3 UNITS

54 Lecture Hours

Essential laboratory techniques and basic science principles and information designed to qualify students for service in agriculture at technical levels. Field trips are required. Lecture. Not repeatable. (A-F Only) **General Education**: (MJC-GE: A)

AG 390XABCD—AGRICULTURAL SKILLS TRAINING 0.5-4 UNITS

X=27 Lab Hours, A= 54 Lab Hours, B= 108 Lab Hours, C= 162 Lab Hours,

D=216 Lab Hours

Emphasis on developing or upgrading skills of agricultural employees. Field trips are required. Total number of AG 390 A, B, C, D units not to exceed eight total units. Lecture/ Laboratory. (A-F Only)

Anatomy Courses (ANAT)

ANAT 125—HUMAN ANATOMY 4 UNITS

36.00 Lecture Hours, 108.00 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BIO 116.

Study of human body structures including organ, tissue and cellular interrelationships in health and disease. Involves extensive use of models, specimens, histological material, and dissection. Cadaver materials and demonstrations are used. This course is primarily intended for Nursing, Allied Health, Kinesiology, and other health related majors. Field trips might be required. Not repeatable. (A-F or P/NP) **Transfer**: (CSU, UC) (C-ID: BIOL 110B) (CC: BIOL 10; BIOL 60 + BIOL 10 = ANAT 125 + PHYSO 101) **General Education**: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

ANAT 130— ADVANCED CADAVER DISSECTION AND ANATOMICAL PREPARATION **1 UNIT**

54 Lab Hours

Prerequisite: Satisfactory completion of ANAT 125.

Limitations on Enrollment: Enrollment limited to students who receive instructor permission as regulated by the Willed Body Program.

Designed for students who have previously taken Human Anatomy and want to learn the anatomy of the human body more deeply through cadaver dissection. Intended to help prepare students entering the health professions for success in their future careers by building a more in-depth knowledge of human anatomy. Field trips might be required. Not repeatable. (A-F Only) Lab. **Transfer**: (CSU)

ANAT 180A, B—INTRODUCTION TO TUTORING ANATOMY **1-2 UNITS**

A= 9 Lecture Hours, 27 Lab Hours B=18 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of ANAT 125.

Fundamental skills of tutoring in the anatomy lab. Strategies for tutoring students enrolled in ANAT 125 will be learned. Specific focus will be on techniques for identifying microscopic and macroscopic structures in the anatomy lab. Intended for students selected as tutors for the ANAT 125 lab. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

Anatomy & Physiology Courses (AP)

AP 50—ELEMENTARY HUMAN ANATOMY-PHYSIOLOGY **3 UNITS**

54 Lecture Hours

Introduction to the structure and function of the human body; basic terminology, cell biology, and the organ systems. Designed as a preliminary course for allied health students, but open to all students. (A-F or P/NP) Lecture. Not repeatable. **General Education**: (MJC-GE: A) (CC BIOL 150)

AP 150 —INTEGRATIVE ANATOMY AND PHYSIOLOGY **5 UNITS**

54 Lecture Hours, 54 Lab Hours, 18 Discussion Hours

Prerequisite: Satisfactory completion of BIO 116 or BIO 101 or BIO 111.

An intense one semester study of the general structure and function of the human body with an emphasis on integrative functions of the organ systems. Includes organ, tissue and cellular interrelationships; cellular communication; blood movement and hemostasis; fluid balance; respiration; digestion; and reproduction. Intended for students entering health professions that accept a one semester course. (A-F or P/NP) Lecture/Lab/Discussion. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

Animal Science Courses (ANSC)

ANSC 50—PREPARATORY ANIMAL SCIENCES **3 UNITS**

36 Lecture Hours

A preparatory survey of the livestock industry, supply of animal products and their uses. A special emphasis on the origin, characteristics, adaptation and contributions of farm animals to the agriculture industry. Analyze the economic trends and career opportunities in animal agriculture. Field trips required. (A-F or P/NP) Lecture. Not repeatable.

ANSC 55—INTRODUCTION TO VETERINARY TECHNOLOGY **3 UNITS**

54 Lecture Hours

Preparation for veterinary technology courses. Topics include: anatomy and physiology, nutrition, pharmacology, common diseases and disorders, genetics and heredity, and career opportunities. Lecture. Not repeatable. (A-F Only)

ANSC 200—INTRODUCTION TO ANIMAL SCIENCE **3 UNITS**

54 Lecture Hours

A scientific approach to the livestock industry encompassing aspects of animal anatomy, physiology, nutrition, genetics and epidemiology. Emphasis on the origin, characteristics, adaptations and contributions of livestock to the modern agriculture industry. Field trips might be required.(A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B2) (IGETC: 5B)

ANSC 201—BEEF CATTLE SCIENCE **3 UNITS**

36 Lecture Hours, 54 Lab Hours

A study of the principles and practices of purebred and commercial beef cattle production throughout California, the United States, and the world. Emphasis to be placed on the importance of breeds, breeding principles, selection, nutrition, environmental management, health, marketing and record keeping to ensure scientifically-based management decisions and consumer product acceptance as applied to beef cattle. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

ANSC 202—SWINE SCIENCE **3 UNITS**

36 Lecture Hours, 54 Lab Hours

A study of the principles and practices of purebred and commercial pork production throughout California, the United States, and the world. Emphasis to be placed on importance of breeds, breeding principles, selection, nutrition, environmental management, health, marketing, and record keeping to ensure scientifically-based management decisions and consumer product acceptance. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

ANSC 203—SHEEP SCIENCE **3 UNITS**

36 Lecture Hours, 54 Lab Hours

A survey of the sheep industry including management of commercial, purebred, and small farm flocks; selecting, feeding, breeding and basic care of ewes and lambs plus marketing of lambs and wool. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

ANSC 207—EQUINE SCIENCE 3 UNITS

36 Lecture Hours, 54 Lab Hours

A survey of the equine industry: selection, feeding, breeding, facilities, handling, and health management will be emphasized to ensure scientifically-based management decisions. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

ANSC 209—EQUINE BREEDING & REPRODUCTION 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ANSC 207.

An advanced level course designed for students interested in learning more about equine reproduction and management. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

ANSC 210—LIVESTOCK SELECTION & EVALUATION 3 UNITS

18 Lecture Hours, 108 Lab Hours

Detailed analysis of various visual and physical methods of appraising beef, sheep, swine and horses concerning functional and economic value. Written and oral summaries of evaluation will be required. Specific reference will be made to performance data and factors determining carcass value. Four completions allowed. Field trips are required. (A-F Only) **Transfer**: (CSU, UC)

ANSC 212—ADVANCED LIVESTOCK SELECTION AND 3 UNITS

CARCASS EVALUATION

18 Lecture Hours, 108 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ANSC 210.

Advanced study of animal conformation as related to its various functions.

Evaluation of beef, sheep and swine species using performance and carcass data as well as live animal observation. Oral interpretation of these evaluative criteria. Formal reasoning presentations required. Two completions allowed. Field trips are required. (A-F Only) Lecture/Lab. **Transfer**: (CSU)

ANSC 214—LIVESTOCK FEEDING AND NUTRITION 3 UNITS

36 Lecture Hours, 54 Lab Hours

The science of animal nutrition; the fundamentals of digestion and absorption in both ruminants and non-ruminants are discussed. The nutritive value of feedstuffs as they relate to the formulation of livestock rations will be emphasized. Laboratory required. Field trips are required. Not repeatable. (A-F Only) Lecture/Lab. **Transfer**: (CSU, UC)

ANSC 215—ANIMAL HEALTH AND SANITATION 3 UNITS

36 Lecture Hours, 54 Lab Hours

Common livestock diseases and fundamentals of immunity. Includes coverage of the livestock worker's role in promoting animal health and the foundation of disease control programs. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

ANSC 216—LIVESTOCK BREEDING AND SELECTION 3 UNITS

36 Lecture Hours, 54 Lab Hours

Anatomy and physiology of male and female reproductive systems, endocrine system, and problems affecting reproductive efficiency; fertilization, gestation, and parturition.

Principles of heredity as applied to livestock breeding and improvement; systems of breeding; environmental factors affecting reproduction and performance. Livestock selection programs based on performance and progeny. Field laboratories including some on Saturdays required. Lecture/Laboratory. (A-F Only). Not repeatable. **Transfer**: (CSU, UC)

ANSC 217—ADVANCED BREEDING & ARTIFICIAL INSEMINATION 4 UNITS

54 Lecture Hours, 54 Lab Hours

Formerly listed as: ANSC 217: Advanced Breeding & Artificial Insemination

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ANSC 201 and satisfactorily complete ANSC 220 and (satisfactorily complete ANSC 216 or satisfactorily complete ANSC 226).

Advanced study and practical application of breeding principles and artificial insemination of farm animals; the collection, evaluation, and handling of semen. Nutritional level and sanitation practices affecting reproductive efficiency. Public relations and responsibilities of the technician and the management. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

ANSC 220—DAIRY INDUSTRY/DAIRY SCIENCE 3 UNITS

36 Lecture Hours, 54 Lab Hours

History, development, and projections of the dairy industry. General information on the economics of dairying, facts, trends, selection, culling, fitting, showing, judging, pedigrees, feeding, and basic management skills; employment opportunities and requirements. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

ANSC 221—DAIRY CATTLE SELECTION & EVALUATION 3 UNITS

18 Lecture Hours, 108 Lab Hours

Selection of dairy cattle on type conformation and the correlation between type and production. Pedigree evaluation, animal analysis, linear classification, and body condition scoring. Written and oral evaluation on selection. Two completions allowed. Field trips are required. (A-F Only) Lecture/Lab. **Transfer**: (CSU, UC)

ANSC 222—MILK PRODUCTION & TECHNOLOGY 3 UNITS

36 Lecture Hours, 54 Lab Hours

Milk and milk product consumption and the economics of milk production. The mammary system anatomy, the physiology of milk secretion, the composition and the properties of milk including factors of production. Evaluation of milking parlors and equipment, systems analysis, and operation is also included. Milk testing, sanitation, quality control, udder health, and treatment as well as dairy mathematics. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

ANSC 224—DAIRY FEEDS & FEEDING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Fundamentals of nutrient digestion and absorption in ruminants. The nutritive value

of feeds as they relate to the formulation of dairy rations will be emphasized with the inclusion of various plant tissue commodities by-product feeding. Term project and field laboratories required. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ANSC 226—DAIRY BREEDING & SELECTION 3 UNITS

36 Lecture Hours, 54 Lab Hours

The study of basic genetic principles with the study of the anatomical and physiological aspects of reproduction as they relate primarily to the bovine. Genetic principles to be emphasized include basic inheritance, selection techniques, mating systems, heterosis, and performance evaluation. Reproductive aspects to include endocrinology, estrous cycles, mating behaviors, gametogenesis, conception, gestation, parturition, and maternal behaviors. Artificial insemination, embryo manipulation, and current innovations in reproductive biotechnology will also be examined. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ANSC 227—ADVANCED DAIRY CATTLE SELECTION & EVALUATION 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have completed the ANSC 220, ANSC 221 and/or completed another class in livestock evaluation.

Advanced study of dairy conformation as related to the function of milk production. Evaluation of dairy cattle using production data, pedigrees and live animal evaluation. Particular emphasis will be placed on linear classification and selective mating. Oral interpretation of these evaluative criteria and formal reasoning presentations will be required. Evaluation of milk and milk products will be required as well. Two completions allowed. Field trips are required. (A-F Only) Lecture/Lab. **Transfer**: (CSU)

ANSC 228—DAIRY MANAGEMENT 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ANSC 220 and satisfactorily complete ANSC 224 and satisfactorily complete AGEC 200.

Economics of dairying; milk production and marketing and their relationship to income; computing production costs; analyzing dairy enterprises; business planning; farm selection; management problems relating to feeding, labor, replacements, cow comfort, breeding, work simplification and record keeping. Term problem and field laboratories required. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ANSC 230—POULTRY SCIENCE 3 UNITS

36 Lecture Hours, 54 Lab Hours

A study of the principles and practices of commercial poultry production. Emphasis to be placed on poultry nutrition, reproduction, environmental management, health, marketing and record-keeper to ensure scientifically-based management decisions and consumer product acceptance. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

ANSC 232—AVIAN PRACTICES 3 UNITS

36 Lecture Hours, 54 Lab Hours

Practices in avian management including breeders, fryers and layers; incubating, brooding, and rearing of chicks; feed preparation; record keeping; processing, and marketing of avian products. Specific work with game birds and non-commercial species of fowl. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

ANSC 235—POULTRY DISEASES AND HOUSING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Anatomy and physiology of poultry; diagnosis, treatment, and control of disease; biosecurity; sanitation; types of housing and equipment; planning housing, and equipment needs; vaccination schedules. Students will conduct a research project. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ANSC 236—POULTRY BREEDING & SELECTION 3 UNITS

36 Lecture Hours, 54 Lab Hours

Principles of breeding, reproduction and selection of poultry. Examination of poultry breeds and their uses. Embryology, egg incubation, hatching and grading. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ANSC 240—BEEF FITTING AND SHOWING 2 UNITS

27 Lecture Hours, 27 Lab Hours

Principles of selection, feeding, fitting, and presentation of beef animals for show. Field trips might be required. Four completions allowed. (A-F Only) Lecture/Lab. **Transfer**: (CSU)

ANSC 241—SHEEP FITTING AND SHOWING 2 UNITS

27 Lecture Hours, 27 Lab Hours

Principles of selection, feeding, fitting, and presentation of sheep animals for show. Field trips are required. Four completions allowed. (A-F Only) Lecture/Lab. **Transfer**: (CSU)

ANSC 242—SWINE FITTING AND SHOWING 2 UNITS

27 Lecture Hours, 27 Lab Hours

Principles of selection, feeding, fitting, and presentation of swine for show. Field trips required. Lecture/Laboratory. (A-F Only). Not repeatable. **Transfer**: (CSU)

ANSC 243—EQUINE FITTING AND SHOWING 2 UNITS

27 Lecture Hours, 27 Lab Hours

Principles of selection, feeding, fitting, and presentation of horses for show. Field trips required. Lecture/Lab. Not repeatable. (A-F Only) **Transfer**: (CSU)

ANSC 244—DAIRY FITTING AND SHOWING 2 UNITS

27 Lecture Hours, 27 Lab Hours

Principles of selection, feeding, fitting and presentation of dairy animals for sales and shows. Field trips might be required.(A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ANSC 245—MEAT GOAT FITTING AND SHOWING 2 UNITS

27 Lecture Hours, 27 Lab Hours

Principles of selection, feeding, fitting and presentation of meat goats for show. Field trips might be required. Lecture/Lab. (A-F Only). Not repeatable. **Transfer**: (CSU)

ANSC 250—VETERINARY PHYSIOLOGY ANATOMY, & TERMINOLOGY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Commonly used terminology and biological concepts used in veterinary medicine. Includes study of basic normal anatomy and physiology in a body systems format, along with related vocabulary and spelling. Commonly used veterinary acronyms and abbreviations are woven throughout the course where relevant. Field trips are not required. Not repeatable. (A-F Only) Lecture. **Transfer**: (CSU)

ANSC 251—VETERINARY PHARMACY PROCEDURES 2 UNITS

36 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AG 280.

Includes discussion of veterinary pharmacology and common items dispensed with emphasis on proper labeling and dispensing instructions. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

ANSC 252— VETERINARY EQUIPMENT: OPERATION, INSTRUMENTATION, AND SAFETY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50. Introduction to diagnostic imaging equipment used in veterinary practices.

Safe operation of radiographic equipment. Developing, trouble-shooting and reading radiographs. Use of ultra-sound equipment. Use of gas anesthesia equipment – safety and proper procedure. Field trips are required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

ANSC 253—VETERINARY LABORATORY PROCEDURES 1 UNIT

18 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Introduction to manual and automated veterinary lab techniques and procedures, including work with blood, urine, fecal and skin samples. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

ANSC 254—VETERINARY MEDICAL OFFICE PROCEDURES 2 UNITS

36 Lecture Hours

Formerly listed as: ANSC 254: Vet Medical Office Procedures

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Customer service, medical communication skills, office organization, scheduling, emergency recognition and management, stress management, preventative health programs, and medical record-keeping. Field trips might be required.(A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

ANSC 255— PREPARATION FOR VETERINARY SURGICAL AND DENTAL ASSISTANCE 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Veterinary Technician preparation for surgery, surgery assistance, surgical and dental instruments and packs, anesthesia induction, monitoring and anesthetic machine maintenance, anatomy of the mouth and dental arcade, dental prophylaxis and extractions. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

ANSC 256— VETERINARY ASSISTANCE & NURSING: EMERGENCY PROCEDURES 1 UNIT

18 Lecture Hours

Formerly listed as: ANSC 256: Vet Assistance & Nursing: Emer Procedure

Emphasis on emergency procedures, monitoring vital signs, taking steps to stabilize patients. Basic nutritional requirements for pets, species requirements, nutritional disorders, feeding methods. Basic animal behavior, detecting signs of stress and identifying causes of behavioral problems. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

ANSC 257— VETERINARY ASSISTANCE AND NURSING: ANIMAL HANDLING 2 UNITS

36 Lecture Hours

Basic veterinary nursing procedures including animal restraint, administration of medication, catheterization, vaccination techniques, bathing, bandaging and performing minor medical procedures. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

ANSC 258—BEGINNING HORSEMANSHIP 3 UNITS

36 Lecture Hours, 54 Lab Hours

Introduction to riding, saddling, grooming and bridling. Students will acquire basic knowledge of equipment and safety procedures. Course topics include use of riding aids and transitions. Students must provide their own horse and equipment for this course. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ANSC 259—PACK ANIMAL - WALK/RIDE 2 UNITS

27 Lecture Hours, 27 Lab Hours

Selection, care, and use of pack animals and equipment. Topics will include safe packing trips and understanding environmental concerns on the trail. Having a horse is not a requirement for this class. Field trips might be required.(A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ANSC 260—ADVANCED HORSEMANSHIP 3 UNITS

36 Lecture Hours, 54 Lab Hours

Advanced instruction in the areas of riding, grooming, saddling and equine care. Students will acquire extensive knowledge of equipment and safety procedures. Course topics include use of advanced riding aids and training. Students must provide their own horse and equipment. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ANSC 265—INTRODUCTION TO COLT TRAINING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Basic principles involved in handling and training the young horse. Course includes groundwork, trailering, starting a colt, advancing the green horse, and problem solving. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ANSC 270— VETERINARY LARGE ANIMAL PHYSIOLOGY, ANATOMY & TERMINOLOGY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

The study of normal anatomy and physiology in large animals (equine, and production animals included) in a body systems format, along with related vocabulary and spelling. Biological, microbiological and chemical concepts as they relate to animal physiology and systemic function will be applied. Industry standard veterinary terminology, acronyms and abbreviations are used throughout the duration of the course. Field trips are not required. Not repeatable. (A-F Only) Lecture. **Transfer:** (CSU)

ANSC 271— LARGE ANIMAL VETERINARY SURGICAL AND DENTAL ASSISTANT 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Veterinary Technician preparation for common large animal surgical procedures. Identification of surgical and dental instruments, surgical pack preparation, anesthesia induction, monitoring and anesthetic machine maintenance, anatomy of the mouth in multiple species, dental prophylaxis and extractions. Field trips are not required. Not repeatable. (A-F Only) Lecture. **Transfer:** (CSU)

ANSC 272—VETERINARY LARGE ANIMAL EMERGENCY PROCEDURES 1 UNIT

18 Lecture Hours

Comprehensive review of large animal emergency procedures, monitoring vital signs, triage and patient stabilization. Understanding shock and animal behavior based on stress and pain levels. Animal restraint in emergency situations. Field trips are not required. Not repeatable. Lecture. (A-F Only) **Transfer:** (CSU)

ANSC 273—VETERINARY LARGE ANIMAL HANDLING 2 UNITS

36 Lecture Hours

Large animal nursing skills including restraint, fluid therapy, administration of medication, catheterization, procedure site preparation, bandaging, splints and casting. Field trips are not required. Not repeatable. (A-F Only) Lecture. **Transfer:** (CSU)

Anthropology Courses (ANTHR)

ANTHR 101—BIOLOGICAL ANTHROPOLOGY 3 UNITS

54 Lecture Hours

Formerly listed as: ANTHR 101: Physical Anthropology

Introduction to human evolution. The evidence for human biological and behavioral adaptations is examined. Issues and topics will include the principles of genetics and evolution, human variation, comparative primate anatomy/behavior and an assessment of the human fossil record. Field trips might be required. Lecture. (A-F or P/NP). Not repeatable. **Transfer**: (CSU, UC) (CC ANTHR 1) (C-ID: ANTH 110) **General Education**: (MJC-GE: A, B) (CSU-GE: B2, D1) (IGETC: 4A, 5B)

ANTHR 102—CULTURAL ANTHROPOLOGY 3 UNITS

54 Lecture Hours

Cultural anthropology examines the broad conditions and experiences of being human through the lens of culture and the difference it makes. This course introduces the methods, theories and insights of cultural anthropology and their application to life in a multicultural society. Topics include, but are not limited to: The research and analysis of culture and cultural processes; cross-cultural comparisons of subsistence patterns, economics, kinship, gender, language, sexuality, political organization, belief systems, and expressive culture; the production of social identities and inequalities; and, cultural change in an interconnected world affected by colonization and globalization. Recommended for people who travel internationally. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ANTHR 2) (C-ID: ANTH 120) **General Education**: (MJC-GE: B) (CSU-GE: D1) (IGETC: 4A)

ANTHR 104—LINGUISTIC ANTHROPOLOGY 3 UNITS

54 Lecture Hours

Formerly listed as: ANTHR 104: Language, Culture and Communication

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Linguistic anthropology examines the relationship between language and the human condition. This course introduces the methods, theories and insights of linguistic anthropology, addressing questions of how, what, when, where, why and with whom we communicate. Three main areas of linguistic anthropology are examined: structural linguistics, including phonology, morphology, the study of syntax and the biocultural basis of language; historical linguistics, including language origins and evolution, language families and dialects, and language change; and, sociolinguistics, including the relationship between culture and language, language use in social context(s), language acquisition, language loss and conservation, and the connections between language, power and identity. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: ANTH 130) **General Education**: (MJC-GE: B, C) (CSU-GE: C2, D1) (IGETC: 3B, 4A)

ANTHR 105—BIOLOGICAL ANTHROPOLOGY LABORATORY 1 UNIT

54 Lab Hours

Formerly listed as: ANTHR 105: Physical Anthropology Laboratory

Corequisite: Concurrent enrollment in or satisfactory completion of ANTHR 101.

This laboratory course is offered as a supplement to Introduction to Biological Anthropology either taken concurrently or in a subsequent term. Students will apply

laboratory exercises using the scientific method to examine processes of human evolution and variation. Lines of evidence will include the study of genetics, comparative anatomy and behavior of primates, forensic anthropology, human fossils and their reconstruction. Field trips might be required. (A-F Only) Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B3) (IGETC: 5C)

ANTHR 107—FORENSIC ANTHROPOLOGY INTRODUCTION 3 UNITS

54 Lecture Hours

Introduction to forensic anthropology as an applied field of physical anthropology; the methods of solving crimes with anthropological data and applying techniques designed for the analysis of human skeletal remains (personal identification, the determination of population, cause of death, DNA analysis, and issues of collection of physical evidence). Interaction between anthropologists and law enforcement agencies and human rights issues. Field trips might be required. Not repeatable. (A-F or P/NP). Lecture. **Transfer**: (CSU)

ANTHR 130—ARCHAEOLOGY & CULTURAL PREHISTORY 3 UNITS

54 Lecture Hours

An introduction to anthropological archaeology including concepts, theories, and methods employed by archaeologists in reconstructing past life ways of humans. Topics include history and interdisciplinary nature of archaeological research; data acquisition, analysis and interpretation with a discussion of applicable data and models; cultural resource management; professional ethics; and selected cultural sequences. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ANTHR 10) (C-ID: ANTH150) **General Education**: (MJC-GE: B) (CSU-GE: D1) (IGETC: 4A)

ANTHR 140—MAGIC, WITCHCRAFT, AND RELIGION 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

This course centers on the cross-cultural study of the forms, functions, poetics and politics of supernatural beliefs and associated rituals in a diverse world. Using anthropological method and theory, students examine belief systems and rituals within particular cultural contexts, including their emergence and the effect of their practice. Additional emphasis is on broad ethnographic comparison, and the course is designed for students to derive insight into the power and cultural work of religious and supernatural frameworks in various societies. Religious and supernatural worlds are also analyzed for their local and global connections with other cultural institutions, movements, forms, politics, and processes. Field trips might be required. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D1) (IGETC: 4A)

ANTHR 150—NATIVE PEOPLE OF NORTH AMERICA 3 UNITS

54 Lecture Hours

Introductory survey of Native North Americans. Protohistory will be examined, with emphasis on historic and contemporary culture groups and their politics, economics, and religions. The impact of non-Native peoples on indigenous cultures will be explored. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ANTHR 15) **General Education**: (MJC-GE: B) (CSU-GE: D1, D3) (IGETC: 4A, 4C)

ANTHR 155—ANTHROPOLOGICAL FIELD STUDIES OF CHANNEL ISLANDS 1 UNIT

18 Disc Hours

Application of principles of anthropology through extended field studies on the Channel Islands of California. Skills developed in anthropological field studies, archaeological artifact and site identification. Requires ability to work and study under rigorous conditions. Field trips are required. Not repeatable. (A-F or P/NP) Discussion. **Transfer:** (CSU)

ANTHR 174—ANTHROPOLOGY SUMMER FIELD STUDIES 3 UNITS

54 Lecture Hours

Application of principles of anthropology through extended field studies at selected sites. Skills developed in cultural field studies, ethnographic data collection, archaeological artifact and site identification. Requires ability to work and study under rigorous conditions. Field trips are required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

ANTHR 190—INTERNATIONAL ANTHROPOLOGY FIELD STUDIES 3 UNITS

54 Disc Hours

Application of principles of anthropology through extended field studies overseas and at international settings. Skills developed in cultural field studies, ethnographic data collection, archaeological artifact and site identification. Requires ability to work and study under rigorous conditions. Field trips are required. Not repeatable. (A-F or P/NP) Discussion. **Transfer:** (CSU)

ANTHR 191—ANTHROPOLOGY OF THE COLORADO PLATEAU 3 UNITS

54 Disc Hours

Application of principles of anthropology through extended field studies in the American Southwest. Skills developed in cultural field studies, ethnographic data collection, archaeological artifact and site identification. Requires ability to work and study under rigorous conditions. Field trips are required. Not repeatable. (A-F or P/NP) Discussion. **Transfer**: (CSU)

ANTHR 192—ANTHROPOLOGY OF THE PACIFIC NORTHWEST 3 UNITS

54 Disc Hours

Application of principles of anthropology through extended field studies in the Pacific Northwest cultural areas of the United States and Canada. Skills developed in cultural field studies, ethnographic data collection, archaeological artifact and site identification. Requires ability to work and study in rigorous conditions. Field trips are required. Field trips are required. (A-F or P/NP) Discussion. Not repeatable. **Transfer**: (CSU)

Art Courses (ART)

ART 102—INTRODUCTION TO COMPUTER GRAPHIC 3 UNITS

36 Lecture Hours, 54 Lab Hours

Also offered as: CMPGR 202: Introduction to Computer Graphics

Formerly listed as: ART 102: Introduction to Computer Graphic Introduction to computer graphics using various applications and tools. Topics explored include but are not limited to: original image creation, photographic editing, scanning, printing, 3D-animation, sound, digitizing pens, mouse, and digital cameras. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1)

ART 108—CERAMICS 1 **3 UNITS**

27 Lecture Hours, 81 Lab Hours

Techniques of elementary clay construction and ornamentation; introduction to throwing techniques. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC ART 31) **Local Requirement:** (Activities)

ART 109—CERAMICS 2 **3 UNITS**

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ART 108.

Hand building and pottery construction. Emphasis on throwing, form, and design. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

ART 110—CERAMICS 3 **3 UNITS**

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ART 109.

Hand building, throwing techniques, and surface decoration; experiments in clay bodies, glazes and loading and unloading of kiln. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

ART 120—BASIC DRAWING 1 **3 UNITS**

27 Lecture Hours, 81 Lab Hours

An introductory course in techniques used in representing form, light and shadow, texture, perspective, composition, and expression using various drawing media. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: ARTS 110) (CC ART 1) **General Education**: (MJC-GE: C) (CSU-GE: C1)

ART 121—BASIC DRAWING 2 **3 UNITS**

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ART 120.

Further exploration of various drawing materials and techniques. Emphasis on composition and development of a personal approach to drawing. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: ARTS 205) **Local Requirement**: (Activities)

ART 123—FIGURE DRAWING **3 UNITS**

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ART 120.

Fundamentals of art anatomy and representation of the human figure. Drawing of both the nude and draped figure in various media. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer:** (CSU, UC) (CC ART 9A) (C-ID: ARTS 200) **Local Requirement**: (Activities)

ART 124—COLOR AND 2-D FOUNDATION DESIGN **3 UNITS**

27 Lecture Hours, 81 Lab Hours

Formerly listed as: ART 124: Color and Design 1

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 120.

Design principles and color theory. Problems in two dimensional form using various media. Field trips might be required. Not repeatable. (A-F or P/NP) Lecture/Lab. **Transfer**: (CSU, UC)(CC: ART 2) (C-ID: ARTS 100) **General Education**: (MJC-GE: C)

ART 125—COLOR AND 3-D FOUNDATION DESIGN **3 UNITS**

27 Lecture Hours, 81 Lab Hours

Formerly listed as: ART 125: Color and Design 2

Prerequisite: Satisfactory completion of ART 124.

Introduction to the concepts and applications related to three-dimensional design and spacial composition, including the study of the elements and organizing principles of design as they apply to three dimensional space and form. Development of a visual vocabulary for creative expression through lecture presentations and use of appropriate materials for non-representational three-dimensional studio projects. Field trips might be required. (A-F or P/NP). Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC ART 3) (C-ID: ARTS 101) **Local Requirement**: (Activities)

ART 129—FIGURE DRAWING 2 **3 UNITS**

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ART 123.

Fundamentals of art anatomy and representation of the human figure. Drawing of both the nude and draped figure in various media. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

ART 140—SCULPTURE 1 **3 UNITS**

27 Lecture Hours, 81 Lab Hours

Study of form, structure, and three-dimensional design as related to sculpture using various materials such as stone, plaster, clay, plastics, and metals. Materials Fee Required. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1)

ART 141—SCULPTURE 2 **3 UNITS**

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ART 140.

Continuation of ART 140; in-depth realization of sculpture in both concept and craftsmanship. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

ART 142—SCULPTURE 3 **3 UNITS**

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ART 141.

Continuation of ART 141 with an emphasis on experimentation and development of personal expression applied to sculptural problems. Field trips might be required.(AF or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

ART 147—PAINTING 1 (IN ACRYLIC) **3 UNITS**

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ART 120 or ART 124.

Introduction to acrylic painting; basic techniques and stylistic approaches. Emphasis on developing form through color. Field trips might be required. (A-F or P/NP)Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: ARTS 210) **Local Requirement**: (Activities)

ART 148—PAINTING 1 (IN OIL) 3 UNITS

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ART 120 or ART 124.

Introduction to oil painting; basic techniques and stylistic approaches. Emphasis on developing form through color. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC ART 21A) (C-ID: ARTS 210) **Local Requirement**: (Activities)

ART 149—PAINTING 2 3 UNITS

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ART 147 or ART 148.

Continued work in oil and acrylic painting; basic techniques and stylistic approaches. Emphasis on developing form through color. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. Transfer: (CSU, UC) (CC ART 21B) **Local Requirement**: (Activities)

ART 158—PAINTING 3 3 UNITS

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ART 149.

Advanced painting: Continued work in oil and acrylic painting;techniques and stylistic approaches. Emphasis on developing content as it relates to the formal issues of art. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

ART 159—MURAL PAINTING 3 UNITS

27 Lecture Hours, 81 Lab Hours

Formerly listed as: ART 159: Painting 4

Prerequisite: Satisfactory completion of ART 147 or ART 148.

Creation of murals on campus within the context of the community; researching different historical examples and approaches to mural making. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

ART 160—APPRECIATION OF ART 3 UNITS

54 Lecture Hours

Introductory art appreciation for the general student. Illustrated lectures cover the theory, terminology, themes, design principles, media techniques, with an introduction to the visual arts across time and diverse cultures. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

ART 162—HISTORY OF RENAISSANCE ART 3 UNITS

54 Lecture Hours

Analysis of the European 14th-16th century drawing, painting, sculpture, and architecture, with an emphasis on the Italian High Renaissance masters. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

ART 163—HISTORY OF MODERN ART 3 UNITS

54 Lecture Hours

Analysis of the arts through the study of painting, sculpture, architecture, and the history of Europe and the Americas from c. 1800 to the present. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: ARTH 150) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

ART 164—HISTORY OF ART 1 3 UNITS

54 Lecture Hours

Analysis of great art epochs through study of paintings, sculpture, architecture and history from pre-historic times to the end of the Middle Ages. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ART 11) (C-ID: ARTH 110) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

ART 165—HISTORY OF ART 2 3 UNITS

54 Lecture Hours

Continuation of study of painting, sculpture and architecture from Renaissance to the present. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ART 12) (C-ID: ARTH 120) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

ART 168—HISTORY OF PHOTOGRAPHY 3 UNITS

54 Lecture Hours

Formerly listed as: ART 168: Survey of Photography

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 170.

An overview of the history of photography from 1800 to the present. Discussion of processes, the work of major practitioners, as well as lesser known figures, the trends, aesthetic movements, and artist groups that have shaped the course of the medium. Emphasis on those working in the fine arts. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

ART 169—SURVEY OF ASIAN ART 3 UNITS

54 Lecture Hours

Formerly listed as: ART 169: History of Non-Western Art

An introduction to the art and architecture of India, China, Korea, Japan, Southeast, Central and Western Asia. Analysis of secular and religious trends in art from the Neolithic period to present. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ART 13) (C-ID:-ARTH 130) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

ART 170—BASIC PHOTOGRAPHY 3 UNITS

27 Lecture Hours, 81 Lab Hours

Introduction to the technique and aesthetic of photography: cameras, black-and-white film and print processing, composition, presentation, and concepts related to photographic practices. Practical emphasis is on film photography with discussion of digital applications. Materials fee required. Field trips might be required. Not repeatable. (A-F or P/NP) Lec/Lab. **Transfer**: (CSU, UC) (CC: ART 40) **General Education**: (MJC-GE: C) (CSU-GE: C1)

ART 172—INTERMEDIATE PHOTOGRAPHY 3 UNITS

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ART 170 or ART 182.

Refinement of basic craft, vision, and aesthetics as they apply to black-and-white photography. Continued emphasis on visual literacy and personalized seeing. Lessons will primarily employ film with some elements of digital media. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

ART 173—BASIC DIGITAL PHOTOGRAPHY 3 UNITS

27 Lecture Hours, 81 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 170.

Introductory course in digital photography. Artistic strategies and use of software applications related to fine art photography will be emphasized. The class includes lectures, discussions, critiques, computer laboratory experience and field work. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

ART 175—COLOR PHOTOGRAPHY 3 UNITS

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ART 172 or ART 186.

The study of color photography, using film and digital processes, including various output methods and presentation strategies. Artificial lighting techniques are introduced. Emphasis of course is upon "seeing" and conceptualizing in color. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

ART 178B—ADVANCED PHOTOGRAPHY 2 UNITS

18 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of ART 172 or 186

Recommended for Success: Satisfactory completion of ART 168

Advanced exploration in the visual and technical areas of either black and white, color, or non-silver photography. Students will design a project and produce a portfolio of finished work. Field trips might be required. Materials fee required. Other - combination seminar, and Hours arranged. Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ART 192—PROFESSIONAL PRACTICES 2 UNITS

27 Lecture Hours, 27 Lab Hours

Prerequisite: Satisfactory completion of ART 172 or ART 173.

Organization of photographic work from prior classes and projects to meet individual goals including Transfer, exhibition and employment. Development of professional materials such as resume, website and business cards as well as finalization of a photographic portfolio. Materials fee required. Field trips might be required. Not repeatable. (A-F or P/NP) **Transfer**: (CSU)

ART 194—ART INDEPENDENT STUDY A 1 UNIT

54 Lab Hours

Limitations on Enrollment: Enrollment limited to students who receive instructor approval of completed Independent Study proposal.

Directed study of independent projects in studio art or art history, with personalized instruction beyond the standard course work. Instructor approval is required. Field trips might be required. Not repeatable. (A-F or P/NP) **Transfer**: (CSU, UC) Note: UC credit awarded after transfer review.

ART 195—ART INDEPENDENT STUDY B 2 UNITS

108 Lab Hours

Limitations on Enrollment: Enrollment limited to students who receive instructor approval of completed Independent Study proposal.

Directed study of independent projects in studio art or art history, with personalized instruction beyond the standard course work. Instructor approval is required. Field trips might be required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) Note: UC credit awarded after transfer review.

ART 196—ART INDEPENDENT STUDY C 3 UNITS

162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who receive instructor approval of completed Independent Study proposal.

Directed study of independent projects in studio art or art history, with personalized instruction beyond the standard course work. Instructor approval is required. Field trips might be required. Not repeatable. (A-F or P/NP) Lab. Transfer: (CSU, UC) Note: UC credit awarded after transfer review.

Astronomy Courses (ASTRO)

ASTRO 151—INTRODUCTION TO ASTRONOMY LAB 1 UNIT

54 Lab Hours

Corequisite: Concurrent enrollment in or satisfactory completion of ASTRO 160.

Techniques in experimental astronomy. Determination of the properties of the Sun and solar system objects, stars and galaxies. Use of college telescopes and instruments may be incorporated into the experiments. Field trips might be required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B3) (IGETC: 5C)

ASTRO 160—INTRODUCTION TO MODERN ASTRONOMY 3 UNITS

54 Lecture Hours

Introductory survey course in astronomy. Emphasis on current studies of the solar system, the study of extra solar planetary systems, the birth and death of stars, and cosmology. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B1) (IGETC: 5A)

Autobody Courses (AUBDY)

AUBDY 301—AUTOMOTIVE COLLISION REPAIR 1 4 UNITS

36 Lecture Hours, 108 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be concurrently enrolled in AUBDY 321.

Introduction in collision repair principles and industry best practices, including OSHA and EPA regulations. Theory and practical application of careers, equipment, vehicle construction materials and fundamental repair procedures. This course works towards ICAR and ASE certification. At the end of each module the student will take a post test and be eligible for ICAR Non-Structural ProLevel 1 points. Materials fee required. Field trips might be required. Not repeatable. (A-F Only). Lecture/Lab.

AUBDY 302—AUTOMOTIVE COLLISION REPAIR 2 4 UNITS

36 Lecture Hours, 108 Lab Hours

Prerequisite: Satisfactory completion of AUBDY 301.

Designed for the student who has successfully completed AUBDY 301. This course covers theory and practical application of plastic and composite repairs, bolt-on panel alignment, replacement methods, Automotive Gas Metal Arc Welding (GMAW) and Squeeze Type Resistant Spot Welding (STRSW) of aluminum and steel. This course works towards ICAR and ASE certification. At the end of each module the student will take a post test and be eligible for ICAR Non-Structural ProLevel 1 points. Materials fee required. Field trips may be required. Non repeatable. (A-F Only) Lecture/Lab.

AUBDY 303—AUTOMOTIVE COLLISION REPAIR 3 4 UNITS

36 Lecture Hours, 108 Lab Hours

Prerequisite: Satisfactory completion of AUBDY 302.

This course is designed for the student who has completed Auto Body 301 and 302. Topics include advanced techniques of damage analysis, repair or replacement of non-structural and mechanical components, estimating practices and employment strategies. This course works towards ICAR and ASE certification. At the end of each module the student will take a post test and be eligible for ICAR Non-Structural ProLevel 1 points. Materials fee required. Field trips might be required.(A-F Only) Lecture/Lab.

AUBDY 321—AUTOMOTIVE SPRAY REFINISHING 1 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be concurrently enrolled in AUBDY 301.

This course covers theory and practical application of refinishing, shop and personal safety practices, as outlined by Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA). Topics include surface preparation, undercoats, sealers, base-coats, single stage, clear coats, and final detailing. This course works towards ICAR and ASE certification. At the end of each module the student will take a post test and be eligible for ICAR Refinish ProLevel 1 points. Materials fee required. Field trips might be required. Not repeatable. (A-F Only) Lecture/Lab.

AUBDY 322—AUTOMOTIVE SPRAY REFINISHING 2 4 UNITS

36 Lecture Hours, 108 Lab Hours

Prerequisite: Satisfactory completion of AUBDY 321 and AUBDY 301.

This course covers advanced theory and practical application of refinishing, tinting, color evaluation, adjustments and matching. Topics include blending procedures, new waterborne technology, color identification, spray techniques and interpreting vehicle color codes. Compliance with federal law (EPA rule 40 CFR Part 63 Subpart 6H) requirements. This course works towards ICAR and ASE certification. At the end of each module the student will take a post test and be eligible for ICAR Refinish ProLevel 1 points. Materials fee required. Field trips might be required. Not repeatable. (AF Only)

Automotive Technology Courses (AUTEC)

AUTEC 200—AUTOMOTIVE SERVICE MANAGEMENT 3 UNITS

54 Lecture Hours

Introduction to automotive service management and the required skills needed to manage a service department. Service operations, management styles and strategies, financial measurement, customer relations, employee relations, selling services, legal issues and responsibilities. Field trips are not required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

AUTEC 211—INTRODUCTION TO ALTERNATIVE FUELS AND ADVANCED TECHNOLOGY VEHICLES 3 UNITS

45 Lecture Hours, 27 Lab Hours

Prerequisite: Satisfactory completion of AUTEC 368.

Introduction to the technology of alternative fuel vehicles including, fuel cell, compressed natural gas, liquid natural gas, propane, hydrogen, ethanol, biodiesel, electric, hybrids, and methanol. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AUTEC 289—PRINCIPLES OF POWER MECHANICS/SM ENGINES 3 UNITS

36 Lecture Hours, 54 Lab Hours

Also offered as AGM 289

Introduction to the operation, construction, maintenance, repair and adjustments of two and four-stroke engines. Designed for persons without prior experience in engine repair. Experienced technicians will also benefit. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

AUTEC 311—BASIC AUTOMOTIVE SYSTEMS 4 UNITS

54 Lecture Hours, 54 Lab Hours

Introduction to the construction and operating principles of automotive systems to include: engine, cooling, lubrication, fuel, exhaust, and electrical. Proper selection and use of automotive shop manuals, service publications, tools, measuring devices, etc. Materials fee required. Field trips might be required. Not repeatable. (A-F Only)

AUTEC 315—A1: ENGINE REPAIR 3.5 UNITS

36 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of AUTEC 311

Use of automotive machine shop equipment. Engine disassembly, cleaning, inspection, measuring, and reassembly procedures. Materials fee required. Field trips are not required. Not repeatable. (A-F Only) Lecture/Lab.

AUTEC 317—AUTO HEATING & AIR CONDITIONING 3.5 UNITS

36 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of AUTEC 311 or AGM 241.

Principles of automotive air conditioning and the components used in air conditioning. Factory installed air conditioning units and add on type units. Charging, leak detection, component replacement and repair procedures. Materials Fee Required. (A-F Only) Lecture/Lab. Not repeatable.

AUTEC 319—A8: ENGINE PERFORMANCE 3.5 UNITS

36 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of AUTEC 368.

Corequisite: Concurrent enrollment in or satisfactory completion of AUTEC 369.

Prepares students for Automotive Service Excellence A8 Exam. Comprehensive study of diagnosis and repair applications including general engines, ignition systems, fuel, air induction and exhaust systems, emission control systems, computerized engine controls, and engine electrical systems. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable.

AUTEC 320—L1: ADVANCED ENGINE PERFORMANCE 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of AUTEC 319.

Prepares students for the Automotive Service Excellence L1 Exam. Advanced engine performance topics including test equipment and diagnosis techniques of powertrain and computerized powertrain controls, fuel system and air induction systems, automotive emission controls and I/M failures. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable.

AUTEC 321—A5: BRAKES SYSTEMS 3.5 UNITS

36 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of AUTEC 311.

Prepares students for the Automotive Services Excellence A5 Exam. Principles of design and operation, techniques for repair, diagnosis and replacement of 4-wheel braking systems. Emphasis on the theory of operation, diagnosis, and repair of modern braking systems and their related components. Preparation for the State Brake Test and ASE Certification Test is included. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable.

AUTEC 322—A4: STEERING, SUSPENSION AND ALIGNMENT 3.5 UNITS

36 Lecture Hours, 81 Lab Hours

Formerly listed as: AUTEC 322: A4: Steering , Suspension and Align

Prerequisite: Satisfactory completion of AUTEC 311.

Prepares students for the Automotive Service Excellence A4 Exam. Principles of design and operation, techniques for diagnosis and repair of steering and suspension systems. Includes component replacement and alignment theory and procedures using two and four-wheel alignment equipment. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable.

AUTEC 323—A2: AUTOMATIC TRANSMISSION & TRANSAXLES 3.5 UNITS

36 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of AUTEC 311.

Prepares students for the Automotive Service Excellence A2 Exam. A detailed study of the clutch, standard and automatic transmission, drive lines and differentials. Theory of operation including: friction materials, hydraulics, torque converters, gear trains, planetary gears, and controls as well as gear ratios, torque multiplication, speeds, drive line angles and tooth patterns. Materials fee required. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable.

AUTEC 324—A3: MANUAL TRANSMISSION AND DRIVE AXLES 3.5 UNITS

36 Lecture Hours, 81 Lab Hours

Formerly listed as: AUTEC 324: A3: Manual Trans and Dr Axles

Prerequisite: Satisfactory completion of AUTEC 311.

Prepares students for the Automotive Service Excellence A3 Exam. Construction, operation and diagnosis of manual transmissions and axles, to include service and overhaul. Theory as well as "hands-on" training with clutch systems and drive axle operation and service. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable.

AUTEC 368—A6: AUTOMOTIVE ELECTRICITY ELECTRONIC SYSTEMS 1 3.5 UNITS

36 Lecture Hours, 81 Lab Hours

Corequisite: Concurrent enrollment in or satisfactory completion of AUTEC 311.

Introduction to automotive electrical systems. Course covers basic fundamentals: Ohm's law, starting and charging systems, batteries, alternators and starters. Course also covers principles of operation, testing, adjusting, and rebuilding procedures for electrical systems. Materials Fee Required. (A-F Only) Lecture/Lab. Not repeatable.

AUTEC 369—A6: AUTOMOTIVE ELECTRICITY 2 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of AUTEC 368.

Prepares students for Automotive Service Excellence A6 Exam. Fundamentals of automotive electronics and electrical components including computers, light and horn circuits, indicating devices, electrical accessories and computer controlled devices. Lab emphasis on testing and servicing electrical equipment. Materials fee required. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable.

AUTEC 373— CLEAN AIR CAR COURSE 5 UNITS

72 Lecture Hours, 54 Lab Hours

Formerly listed as AUTEC 373 - 97 B.A.R. Clean Air Course

Prerequisite: Satisfactory completion of AUTEC 320.

Recommended for Success: Before enrolling in this course, students are strongly advised to contact the instructor teaching the class.

This course is California Bureau of Automotive Repair approved for the basic (EB) and enhanced (EA) emission control licenses. It is designed especially for the automobile technician preparing for the California Smog License. Students who do not have one year of trade experience in emissions/tune-up or required courses and certificates will not be eligible to take the state licensing examination. Emphasis will be on operational principles of the emission control components and how to test them. B.A.R. requires a minimum of 90% attendance and 70% (C) grade for completion. Materials Fee Required. (A-F or P/NP) Lecture/Lab. Not repeatable.

Biology Courses (BIO)

All courses are offered for a letter grade only unless otherwise stated. Biology majors must take major courses on a letter grade basis. All majors must complete a program of courses approved by the division. Suggested curricula for specific biological sciences majors and related fields may be obtained from the advisors. Classes may sometimes convene at off-campus sites within the YCCD.

BIO 50—BASIC BIOLOGY **3 UNITS**

54 Lecture Hours

Introduction to the study of living organisms. Intended as a practical foundation for students interested in a basic knowledge of biological principles, terminology and the scientific process. May serve as a bridge to transfer level biology courses and is not open to students who have completed a transfer-level biology course. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **General Education**: (MJC-GE: A)

BIO 101—BIOLOGICAL PRINCIPLES **4 UNITS**

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of CHEM 101 or CHEM 142.

Study of general principles of biology in relationship to the processes of all living organisms. Topics include an introduction to the nature of science, reproduction, development, evolution, energetics, molecular biology, genetics, cellular structure, homeostatic mechanisms, ecology and taxonomy. Core course intended for biology and biology-related majors. Field trips might be required. Not repeatable. (A-F or P/NP) Lecture/Lab. **Transfer**: (CSU, UC) (CC BIOL 2, BIO 101+ BOT 101+ ZOOL 101=BIO 2 + BIO 4+BIO 6) (C-ID: BIOL 190) **General Education**: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

BIO 111—GENERAL BIOLOGY **4 UNITS**

54 Lecture Hours, 54 Lab Hours

Introduction to principles of life, including reproduction, heredity, development, evolution, historical development of biology, molecular biology, and ecology. Not open to students who have completed BIO 101. Not a substitute for BIO 101. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC BIOL 17) **General Education**: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

BIO 114—GENERAL ECOLOGY **4 UNITS**

54 Lecture Hours, 54 Lab Hours

Formerly listed as BIO 114 - Introduction to Ecology

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Introduction to the biological sciences and the general concepts and principles of ecology. Topics include organization and energetics of nature, natural interactions and biological diversity. Includes global and local ecosystems, scientific methods of ecological research, nutrient cycles and conditions of existence, and ecological assessment. Field trips are required. Not repeatable. (A-F or P/NP) Lec/Lab. **Transfer**: (CSU, UC) (CC: BIOL 24) **General Education**: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

BIO 115—GENETICS, EVOLUTION, AND SOCIETY **3 UNITS**

54 Lecture Hours

Exploration of basic principles of genetics and evolution as unifying themes in the biological sciences. Emphasis on analysis of gene action, mutation, inheritance, natural selection, evolution of life and of species, biotechnologies and their implications for society. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE:B2) (IGETC: 5B)

BIO 116—BIOLOGY: A HUMAN PERSPECTIVE **4 UNITS**

54 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and satisfactorily complete MATH 70.

An introduction to the principles of biology with an emphasis on humans. Topics covered include scientific method, cell structure and function, biochemistry, metabolism, heredity, biotechnology, evolution, anatomy and physiology of the human body, development of aging, disease, and ecology. BIO 116 is recommended for allied health students. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

BIO 128—SIERRA NEVADA NATURAL HISTORY **3 UNITS**

Formerly listed as: BIO - 128: The Sierra Nevada

54 Lecture Hours

A study of the Sierra Nevada mountain range: the people, physical features, fungi, plants and animals. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) **General Education:** (MJC-GE: A)

BIO 140—INTRODUCTION TO MARINE BIOLOGY **4 UNITS**

54 Lecture Hours, 54 Lab Hours

Introduction to the natural history of plant and animals living in temperate and tropical marine habitats, including rocky shore, mudflat, sandy beach, salt marsh, coral reef, mangal forest, open ocean, deep ocean, and bay/estuary. Polar and subpolar marine ecosystems will also be introduced. Field trips are required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

BIO 145—INTRODUCTION TO FRESHWATER BIOLOGY **4 UNITS**

54 Lecture Hours, 54 Lab Hours

Introduction to the natural history of common organisms of the freshwater environment along with basic ecological principles, which includes: energy flow, nutrient cycling, population dynamics, and community structure. (A-F or P/NP) Field trips are required. Lecture/Laboratory. Materials fee required. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

BIO 151XABC—BIOLOGY FIELD STUDIES **0.5- 3 UNITS**

X=9 Lecture Hours, A=18 Lecture Hours, B= 36 Lecture Hours, C=54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete (BIO 111, BIO 101, ZOOL 101, BOT 101 or other college-level biology course.)

Field trips to representative and unique ecosystems. Emphasis on life histories, adaptations and biological interactions of organisms within the ecosystem studied. Field experiences will include sampling methods, preparation of field notes and field identification of species characteristic of the ecosystem. Field trips are required. Lecture/Materials fee required. Not offered every semester. Not repeatable. **Transfer**: (CSU)

BIO 155—BIOLOGICAL FIELD STUDIES OF THE CHANNEL ISLANDS 1 UNIT

18 Disc Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have completed any college level biology, zoology, botany, or ecology course.

Application of biological principles through field studies in the Channel Islands. Emphasis on the ecology and evolution of species endemic to these islands. Field experiences include sampling methods, preparation of field notes, and field identification of species characteristic of this ecosystem. Requires ability to work and study under rigorous conditions. Field trips are required. Not repeatable. (A-F or P/NP) Discussion. **Transfer**: (CSU)

BIO 180AB—INTRODUCTION TO TUTORING BIOLOGY 1-2 UNITS

A= 9 Lecture Hours, 27 Lab Hours, B= 18 Lecture Hours, 54 Lab Hours

Formerly listed as: BIO - 180: Special Projects in Biology

Prerequisite: Satisfactory completion of BIO 111 or BIO 116 or BIO 101.

Fundamental skills of tutoring in the biology lab. Strategies for tutoring students enrolled in general biology or human biology will be learned. Specific focus will be on techniques for identifying microscopic and macroscopic structures in the biology lab. Intended for students selected as tutors for the biology or human biology lab. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

Botany Courses (BOT)

BOT 101—GENERAL BOTANY 4 UNITS

36 Lecture Hours, 108 Lab Hours

Prerequisite: Satisfactory completion of BIO 101.

Principles of plant life, plant morphology, anatomy, physiology, reproduction, genetics, evolution, and ecology of bacteria, fungi, algae, archaea, slime molds, bryophytes, and vascular plants. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC BIOL 6) (MJC BIO 101+ BOT101+ZOOL101= CC BIO 2+4+6) **General Education**: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

BOT 110—PLANT BIOLOGY 3 UNITS

36 Lecture Hours, 54 Lab Hours

Introduction to plants, including structure and function, heredity, development, reproduction, ecology, classification, evolution, economic and resource importance as they pertain to plants. Not open to students who have completed Biology 101. Not a substitute for Botany 101. Field trips might be required. Not repeatable. (A-F or P/NP) Lec/Lab. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

Business Administration Courses (BUSAD)

BUSAD 50—BUSINESS COMPUTATIONS 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 20 or qualify by placement through the MJC assessment process.

Mathematical background for business students. Problems of buying and selling, simple and compound interest, bank discounts, trade and cash discounts, installment payments, inventory markups, annuities, present value, commissions, taxes, payrolls, depreciation, and financial statements. Field trips are not required. Lecture. Not repeatable. (A-F or P/NP)

BUSAD 200—SPREADSHEET SKILLS FOR FINANCIAL ACCOUNTING 2 UNITS

18 Lecture Hours, 54 Lab Hours

Formerly listed as: BUSAD 200: Financial Accounting On Spreadsheet

Corequisite: Concurrent enrollment in or satisfactory completion of BUSAD 201 or satisfactory completion of BUSAD 320.

Introduction to spreadsheet software. Spreadsheet and template analysis, design, testing, and documentation as they relate to the field of accounting will be covered; hands-on experience using Microsoft Excel or a similar spreadsheet application will be used. Field trips are not required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

BUSAD 201—FINANCIAL ACCOUNTING 4 UNITS

72 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 310 and satisfactorily complete ENGL 50.

Explores what financial accounting is, why it is important, and how it is used by investors and creditors to make decisions; focusing on a preparer approach. Covers the accounting information system and the recording and reporting of business transactions with a focus on the accounting cycle, the application of generally accepted accounting principles, the classified financial statements, and statement analysis. Includes issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls and ethics. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC BUSAD 2A) (C-ID: ACCT 110)

BUSAD 202—MANAGERIAL ACCOUNTING 4 UNITS

72 Lecture Hours

Prerequisite: Satisfactory completion of BUSAD 201.

Examination of how managers use accounting information in decision-making, planning, directing operations, and controlling. Focuses on cost terms and concepts, cost behavior, cost structure, and cost-volume-profit analysis. Examination of profit planning, standard costs, operations and capital budgeting, cost control, and accounting for costs in manufacturing organizations. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC BUSAD 2B) (C-ID:-ACCT 120)

BUSAD 203—COMPUTER ACCOUNTING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of BUSAD 201 or BUSAD 310.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 320 if BUSAD 310 is used to satisfy the prerequisite.

Introduction to the use of the computer in accounting/bookkeeping. Practical applications of accounting through hands-on experiences on the personal computer using a variety of current computer accounting software packages. Field trips are not required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

BUSAD 208—INTRODUCTION TO INTERNATIONAL BUSINESS 3 UNITS

54 Lecture Hours

Also offered as: AGEC 208: Introduction to International Business

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 248.

A comprehensive overview of international business. Offers a global perspective of international trade, international marketing, international accounting, the operation of multinational companies, economic theories and forces, international organizations and the political and cultural impact of world trade. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

BUSAD 209—IMPORT/EXPORT FUNDAMENTALS 3 UNITS

54 Lecture Hours

Also offered as: AGEC 209: Import/Export Fundamentals

This course examines motivations and procedures for the import and export of goods and services. Emphasizes U.S. import/export regulations, documentation, logistics, community resources and customer services. Special emphasis on finance and financial documentation. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

BUSAD 210—BUSINESS COMMUNICATION 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 101.

Principles and applications of written and oral business communications including routine memo and letter writing, persuasive writing, oral communication, and informative report writing. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (C-ID:-BUS115) **General Education**: (MJC-GE: D2)

BUSAD 218—BUSINESS LAW 4 UNITS

72 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be a third-semester Business Major.

Introduction to the legal process, laws and regulations affecting managerial decisions; legal concepts and case analysis in the areas of ethics, employment, consumer transactions, competition, the environment, business torts and crimes, contracts, agency, business organizations, and international business. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC BUSAD18) (C-ID: BUS 125)

BUSAD 230—PERSONAL FINANCE 3 UNITS

54 Lecture Hours

Open to both business and non-business majors. An integrated approach to personal finance and financial literacy. Topics are designed to facilitate informed and deliberate decision making, in alignment with personal values, to maximize financial resources throughout the individual's life span. Emphasizes practical decision making using contemporary theory and real world examples while integrating the social, psychological, and physiological context in which financial decisions are made. Topics include common financial issues such as budgeting, career planning, goal setting, purchasing and financing a home and other large consumer purchases, personal risk management and insurance issues, managing credit, investment strategies, as well as tax, retirement and estate planning. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) **General Education**: (MJC-GE: E)

BUSAD 240—PRINCIPLES OF MANAGEMENT 3 UNITS

54 Lecture Hours

Concepts of management including managerial roles, ethical and legal issues, motivation and performance, organizational and team dynamics, leadership and motivation, decision making, and communication. Students explore how organizations do or do not function effectively in international and multicultural contexts. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC BUSAD 40) **General Education**: (MJC-GE: B)

BUSAD 245—PRINCIPLES OF MARKETING 3 UNITS

54 Lecture Hours

Overview of the foundations, principles, processes, and goals of marketing and an analysis of how marketing functions in current business practice. Customer needs and behaviors, development of a product and/or service to satisfy customer needs, design, and analysis of promotional strategies, distribution methods, and pricing. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC BUSAD 30)

BUSAD 246—RETAIL MANAGEMENT 3 UNITS

54 Lecture Hours

Formerly listed as: BUSAD 246: Store Management

An examination of the resources, abilities, and knowledge necessary to establish and operate a retail business successfully. Subjects studied include site selection, merchandising policies and management, buying policies and activities, pricing, retail promotion, customer service and credit, personal selling, and marketing research for retailers. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

BUSAD 248—INTRODUCTION TO BUSINESS 3 UNITS

54 Lecture Hours

Survey of business principles, problems and operations; legal, ethical, moral, and social issues; ownership; human resources; management; production; marketing; finance; managerial controls, government regulation; risk management. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC BUSAD 20) (C-ID: BUS 110)

BUSAD 249ABCD—BUSINESS INTERNSHIP 1- 4 UNITS

A= 54 Lab Hours, B= 108 Lab Hours, C= 162 Lab Hours, D= 216 Lab Hours

An internship program with selected business firms dealing with either accounting, marketing, business law, office administration, bookkeeping, real estate, or retail management practices in public or private agencies. Student interns will be under joint supervision of the employers and faculty members. Intended to provide practical applications for students who have developed theoretical knowledge and effective interpersonal skills by completing their discipline's introductory level course(s). One unit equals 60 hours of uncompensated work experience or 75 hours of compensated work experience. See appropriate instructor for required enrollment forms. Field trips are not required. (P/NP Only) Lab. Not repeatable. **Transfer**: (CSU)

BUSAD 274—HUMAN RESOURCES MANAGEMENT 3 UNITS

54 Lecture Hours

The role of human resources management and its contribution to the business organization. Principles and methods of effective utilization of human resources in

the business environment. Examination of the human resources environment, as well as issues relating to employee recruitment, selection, assessment, development, compensation and rewards. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

BUSAD 300—MACHINE CALCULATION 2 UNITS

27 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 20.

Instruction in the operation of the electronic calculator including addition, subtraction, multiplication, and division using constant factors and automatic accumulation as applied to business applications. Major emphasis on 10-key touch operation with maximum stroke/minute/accuracy rate. Field trips are not required. Lecture/Lab. Not repeatable. (A-F or P/NP)

BUSAD 310—BOOKKEEPING 1 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 300 or satisfactorily complete BUSAD 50.

Essential bookkeeping fundamentals for job entry in business. Basics of double entry bookkeeping: general and special journals, general and subsidiary ledgers, business forms, payroll records and governmental payroll forms. Recommended as a preparatory course for BUSAD 201, Accounting. Field trips are not required. Lecture. Not repeatable. (A-F or P/NP)

BUSAD 319—PAYROLL ACCOUNTING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of BUSAD 310 or BUSAD 201

This course covers laws pertaining to wages, payroll taxes, payroll tax forms, and general journal transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms with reporting requirements; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete payroll tax forms, and prepare accounting entries using appropriate technology. Field trips are not required. Lecture/Lab. Not repeatable. (A-F or P/NP)

BUSAD 320—BOOKKEEPING 2 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of BUSAD 310

A continuation of BUSAD 310. This course covers modern bookkeeping trends and techniques and reinforces the completion of a full accounting cycle. Emphasis is placed on expanding the bookkeeper's knowledge of more advanced topics such as accounting for fixed assets, valuing receivables, the statement of cash flows, financial statement analysis, and accounting for partnerships and corporations. Content is taught based on a preparer perspective that can be applied to the workplace or bookkeeping for one's own business. Field trips are not required. (A-F or P/ NP) Lecture. Not repeatable.

BUSAD 336—TAX ACCOUNTING 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 201 or satisfactorily complete BUSAD 310.

Open to both accounting and non-accounting majors. This class provides an explanation of the federal tax structure as it relates to individual taxation. Study includes a practical user approach to the most important areas of the tax law including how to calculate individual income tax, maximize deductions and credits, and tax planning strategies. Emphasis placed on basic preparation and learning how to research tax questions and interpret tax laws and regulations as they relate to the individual taxpayer. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable.

BUSAD 351—ELEMENTS OF SUPERVISION 3 UNITS

54 Lecture Hours

Also offered as: SUPR 351

The nature and function of the supervisor's role in business, industry, and government. The skills and techniques of effective management will be examined and applied in terms of attaining maximum results through the cooperative efforts of others. Field trips are not required. Lecture. Not repeatable. (A-F or P/NP)

BUSAD 358—ADVERTISING & SALES PROMOTION 3 UNITS

54 Lecture Hours

This course covers the elements of advertising and sales promotion in the business environment using an Integrated Marketing Communications (IMC) perspective. Topics include using advertising and sales promotion as a marketing tool; establishing objectives and budgeting for promotional program; planning and evaluation of media used in advertising; and measuring the effectiveness of an advertising and sales promotional program. Stresses practical application. Field trips are not required. Lecture. Not repeatable. (A-F or P/NP)

BUSAD 364—TOTAL QUALITY MANAGEMENT 3 UNITS

54 Lecture Hours

Also offered as: SUPR 364

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete SUPR 351 or satisfactorily complete BUSAD 240.

Total Quality Management, TQM, is a method by which management and employees can become involved in the continuous improvement of the production of goods and services. This course focuses on total quality management concepts, methodologies and practices of services and manufacturing industries. Topics like organizational and cultural aspects of total quality management associated with implementing quality systems, communicating the quality message, team building, training and learning will be addressed. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable.

BUSAD 377—HUMAN RELATIONS IN BUSINESS 3 UNITS

54 Lecture Hours

People and their roles in the business and non-profit community. The nature of work, the work environment, personal skills and performance, work groups, and solving human relations problems. (A-F or P/NP) Lecture. Not repeatable.

Chemistry Courses (CHEM)

CHEM 101—GENERAL CHEMISTRY 1 5 UNITS

54 Lecture Hours, 54 Lab Hours, 18 Discussion Hours

Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to complete CHEM 142 with a grade of C or better or complete High School Chemistry with a grade of B or better.

Principles of chemistry emphasizing measurements and significant figures, chemical reactions, stoichiometry, gas laws and theory, chemical energy, atomic structure and quantum mechanics, periodic properties, chemical bonding, molecular structure, intermolecular attractions and properties of liquids and solids, and properties of solutions. Field trips are not required. (A-F or P/NP) Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C) (C-ID: CHEM 110) (CC CHEM 2A & 2AL) Lecture/Lab/Discussion

CHEM 102 —GENERAL CHEMISTRY 2 5 UNITS

54 Lecture Hours, 54 lab Hours, 18 Discussion Hours

Prerequisite: Satisfactory completion of CHEM 101.

Continuation of Chemistry 101 emphasizing kinetics, solutions, equilibrium, acids and bases, electrochemistry, thermodynamics, nuclear chemistry, coordination chemistry and descriptive chemistry. (A-F or P/NP) Lecture/Lab /Discussion. Not repeatable. **Transfer**: (CSU, UC) (CC CHEM 2B & 2BL) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

CHEM 112—ORGANIC CHEMISTRY 1 5 UNITS

54 Lecture Hours, 54 Lab Hours, 18 Disc Hours

Prerequisite: Satisfactory completion of CHEM 102.

Organic Chemistry 1 is the first semester of a two semester sequence that covers bonding, acid-base relationships, nomenclature, stereochemistry, conjugation, resonance, mechanisms, reactions, synthesis and advanced spectroscopy of several functional groups. Laboratory includes basic techniques, (eg., separatory methods such as extraction and chromatography), as well as emphasis on MS, UV-vis, IR and NMR analysis. A one hour discussion each week will cover advanced problem solving of lecture topics. Students may not earn credit for both CHEM 112 and CHEM 122. Field trips are not required. Not repeatable. (A-F or P/NP). Lecture/Lab/Disc. **Transfer**: (CSU, UC) (CC: CHEM 4A + 4AL) (C-ID: CHEM 150, CHEM 160S) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

CHEM 113—ORGANIC CHEMISTRY 2 5 UNITS

54 Lecture Hours, 108 Lab Hours

Prerequisite: Satisfactory completion of CHEM 112.

Organic Chemistry 2 is the second semester of a two semester sequence that covers nomenclature, physical properties and reactions of alcohols and sulfur containing compounds, aromatic compounds, aldehydes, ketones, carboxylic acids, carboxylic acid derivatives, aminesheterocycles and bio-organic compounds. Mechanisms to be addressed are electrophilic and nucleophilic aromatic substitution and nucleophilic acyl substitution and addition. Oxidation and reduction processes will be investigated more thoroughly. Course concludes with an introduction to biomolecules. Concepts from CHEM 112 will be reinforced. Laboratory includes reactions and multistep synthesis with continued development of analytical techniques, in particular, mass spectrometry, IR and 1H and 13C NMR spectroscopy. Students may not earn credit for both CHEM 113 and CHEM 123. Field trips are not required. Not repeatable. (A-F or P/NP). Lecture/Lab. **Transfer**: (CSU, UC) (CC: CHEM 4B + 4BL) (C-ID: CHEM 160S) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

CHEM 122—STRUCTURE AND REACTIVITY: ORGANIC CHEMISTRY 1 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of CHEM 102.

Bonding, acid-base relationships, nomenclature, stereochemistry, conjugation, resonance, mechanisms, reactions, synthesis and advanced spectroscopy of several functional groups. Laboratory includes basic techniques, (eg., separatory methods such as extraction and chromatography), as well as emphasis on MS, UV-vis, IR and 1H NMR. Students may not earn credit for both CHEM 112 and CHEM 122. Field trips are not required. Not repeatable. (A-F or P/NP). Lecture/Lab. **Transfer**: (CSU, UC) (C-ID: CHEM 150, CHEM 160S) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

CHEM 123—STRUCTURE AND REACTIVITY: ORGANIC CHEMISTRY 2 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of CHEM 122.

Lecture content includes nomenclature, physical properties and reactions of alcohols and sulfur containing compounds, aromatic compounds, aldehydes, ketones, carboxylic acids, carboxylic acid derivatives, aminesheterocycles and bio-organic compounds. Mechanisms to be addressed are electrophilic and nucleophilic aromatic substitution and nucleophilic acyl substitution and addition. Oxidation and reduction processes will be investigated more thoroughly. Course concludes with an introduction to biomolecules. Concepts from CHEM 122 will be reinforced. Laboratory includes reactions and multistep synthesis with continued development of analytical techniques, in particular, mass spectrometry, IR and 1H and 13C NMR spectroscopy. Students may not earn credit for both CHEM 113 and CHEM 123. Field trips are not required. Not repeatable. (A-F or P/NP). Lecture/Lab. **Transfer**: (CSU, UC) (CC: CHEM 4B + 4BL) (C-ID: CHEM 160S) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

CHEM 133—PROBLEM SOLVING SKILLS FOR CHEM 143 1 UNIT

18 Lecture Hours

Corequisite: Concurrent enrollment in CHEM 143.

Designed to supplement CHEM 143 with additional assistance in developing problem-solving skills necessary for success. Emphasis is placed on dimensional-analysis, nomenclature, and other basic concepts. Must be taken concurrently with CHEM 143. Field trips are not required. (P/NP Only) Lecture. Not repeatable. **Transfer**: (CSU)

CHEM 142—PRE-GENERAL CHEMISTRY 3 UNITS

36 Lecture Hours, 18 Discussion Hours

Corequisite: Concurrent enrollment in or satisfactory completion of MATH 90 or qualification by the MJC assessment process.

Intended to prepare students for General Chemistry with an emphasis on problem solving using unit analysis. Included are topics on measurement, classification of matter, nomenclature, gas laws, chemical reactions, atomic and molecular structure stoichiometry, aqueous solutions and fundamentals of acids and bases Field trips are not required. (A-F or P/NP) Lecture/ Discussion. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B1) (IGETC: 5A)

CHEM 143—INTRODUCTORY COLLEGE CHEMISTRY 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of MATH 70 or qualification by the MJC assessment process.

Designed to meet the requirements for allied-health majors and General Education. Principles of general, inorganic chemistry with a strong emphasis on problem solving using dimensional analysis. Included are topics on measurement, classification of matter, nomenclature, gas laws, chemical reactions, atomic and molecular structure, stoichiometry, aqueous solutions and fundamentals of acids and bases. Field trips are not required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: CHEM 101) **General Education:** (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C) (CC CHEM14 & 4L)

CHEM 144—FUNDAMENTALS OF ORGANIC & BIOCHEMISTRY 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of CHEM 143.

Basic principles of organic and biochemistry for allied health majors. Topics include general organic chemistry and biological chemistry as they apply to living systems. The laboratory component will support the course topics including both qualitative and quantitative experiments, and analysis of data. Field trips are not required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC CHEM 16 + 16L) (C-ID CHEM 102) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

CHEM 150—EXPLORING OUR CHEMICAL ENVIRONMENT 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of MATH 70 or qualification by the MJC assessment process.

Chemical perspective of environmental topics including acid rain and global warming. Basic chemical principles are developed in order to understand such items as conventional, nuclear, and alternative energy sources, air and water pollution, fertilizers, pesticides, food preservatives, genetic engineering, and medicines and drugs. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC CHEM 20) (C-ID: CHEM 100) **General Education**: (MJC-GE: A) (CSU-GE: B1) (IGETC: 5A)

CHEM 164—INTRODUCTORY CHEMISTRY LABORATORY 2 UNITS

18 Lecture Hours, 54 Lab Hours

Corequisite: Concurrent enrollment in or satisfactory completion of CHEM 150 or CHEM 142.

Introductory concepts and techniques used in a chemistry laboratory. Recommended for liberal studies and other non-science majors. Topics include: scientific method, measurements, physical and chemical changes, data analysis, molecular compounds, chemical reactions and energy. No credit will be given for students who have completed CHEM 143 or CHEM 101 Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B3) (IGETC: 5C)

Child Development Courses (CLDDV)

CLDDV 101— PRINCIPLES AND PRACTICES OF TEACHING YOUNG CHILDREN 3 UNITS

54 Lecture Hours

Formerly listed as: CLDDV - 101: Introduction to Early Childhood Education

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

An examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for all children. This course includes a review of the historical roots of early childhood programs and the evolution of the professional practices promoting advocacy, ethics and professional identity. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC CHILD 3) (C-ID: ECE 120)

CLDDV 103—CHILD GROWTH AND DEVELOPMENT 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Examines the major physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from conception through adolescence. Emphasis on interactions between maturational process and environmental factors. Studying developmental theory and investigative research methodologies, students will observe children, evaluate individual differences, and analyze characteristics of development at various stages. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC CHILD 1) **General Education**: (MJC-GE: B, E) (CSU-GE: D7, E) (IGETC: 4G) (C-ID: CLDEV 100)

CLDDV 107—INTRODUCTION TO CURRICULUM 3 UNITS

54 Lecture Hours

Formerly listed as: CLDDV - 107: Introduction to Child Development Curric

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

This course presents an overview of knowledge and skills related to providing appropriate curriculum and environments for infants and young children. Students will examine the teacher's role in supporting development by using observation and assessment strategies and emphasizing the essential role of play. An overview of content areas will include but not be limited to: Language and literacy, social and emotional learning, sensory learning, art and creativity, math and science. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC CHILD 35) (C-ID:ECE 130)

CLDDV 109—CHILD-FAMILY-COMMUNITY 3 UNITS

54 Lecture Hours

An examination of the developing child in a societal context focusing on the interrelationship of family, school and community and emphasizes historical and sociocultural factors. The processes of socialization and identity development will be highlighted, showing the importance of respectful, reciprocal relationships that support and empower families. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC CHILD 22) (C-ID: CLDEV 110) (MJC-GE: B)

CLDDV 111—HEALTH, SAFETY, AND NUTRITION 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Introduction to the laws, regulations, standards, policies and procedures and early childhood curriculum related to child health, safety, and nutrition. 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. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (C-ID: ECE 220) (CC CHILD 26) **General Education**: (MJC-GE: E)

CLDDV 121—GUIDANCE OF YOUNG CHILDREN 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Introduction to positive guidance and discipline approaches in educational and family settings. Exploration of the underlying causes of misbehavior. Appropriate and effective techniques that support socio-emotional, cognitive, psychological, and physical health and development. Understanding of individual parent, teacher, and caregiving styles and attitudes relative to behavior of children. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC CHILD 23)

CLDDV 122—CARE AND EDUCATION FOR INFANTS AND TODDLERS 3 UNITS

54 Lecture Hours

Formerly listed as: CLDDV - 122: Learning Environments Infants/Toddlers

Prerequisite: Satisfactory completion of CLDDV 125.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CLDDV 121.

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. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC CHILD 43)

CLDDV 125—INFANT AND TODDLER DEVELOPMENT AND CARE 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of CLDDV 103.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

A study of infants and toddlers from pre-conception to age three including physical, cognitive, language, social, and 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 Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC CHILD 42)

CLDDV 127—INFANT/TODDLER PRACTICUM 3 UNITS

18 Lecture Hours, 108 Lab Hours

Formerly listed as: CLDDV - 127B: Infant/Toddler Practicum

Prerequisite: Satisfactory completion of CLDDV 101 and CLDDV 103 and CLDDV 107 and CLDDV 109 and CLDDV 121 and CLDDV 125.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50. Limitations on Enrollment: Enrollment limited to students who can demonstrate TB clearance.

A demonstration of developmentally appropriate early childhood teaching competencies under guided supervision in an infant/toddler classroom. Students 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. Knowledge of care routines and relationship based content areas will be emphasized as student teachers design, implement, and evaluate experiences that promote positive development and learning for all young children while supporting an inclusive and culturally diverse environment. Will support IFSP goals and may include participation in an educational meeting. This course is a capstone to the Child Development Program. Students are encouraged to be near completion of their major coursework when they enroll. Field trips might be required. Lecture/Lab. (A-F or P/NP) Not repeatable. **Transfer**: (CSU) (CC CHILD 16 OR CHILD 44) (C-ID: ECE 210)

CLDDV 128—PRESCHOOL PRACTICUM 3 UNITS

18 Lecture Hours, 108 Lab Hours

Prerequisite: Satisfactory completion of CLDDV 101 and CLDDV 103 and CLDDV 107 and

CLDDV 109 and CLDDV 121 and CLDDV 125.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Limitations on Enrollment: Enrollment limited to students who can demonstrate TB clearance.

A demonstration of developmentally appropriate early childhood teaching competencies under guided supervision in a preschool classroom. Students 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. Knowledge of curriculum content areas will be emphasized as student teachers design, implement and evaluate experiences that promote positive development and learning for all young children while supporting an inclusive and culturally diverse environment. Will support IEP goals and may include participation in an educational meeting. This course is a capstone to the Child Development Program. Students are encouraged to be near completion of their major coursework when they enroll. His course is a capstone to the Child Development Program. Students are encouraged to be near completion of their major coursework when they enroll. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) (CC CHILD 16) (C-ID: ECE 210)

CLDDV 150—ADMINISTRATION IN CHILDREN'S PROGRAMS 3 UNITS

54 Lecture Hours

Formerly listed as: CLDDV 150: Administration of Children's Programs

Introduction to the administration of early childhood programs. Covers program types, budget, management, regulations, laws, development and implementation of policies and procedures. Examines administrative tools, philosophies, and techniques needed to organize, open, and operate an early care and education program. This is a capstone course and it is expected that Students have completed the CORE Child Development courses (101, 103, 107, & 109). It is recommended that prior to taking this course, students have experience working in the field. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC CHILD 30)

CLDDV 151—SUPERVISION IN CHILDREN'S PROGRAMS 3 UNITS

54 Lecture Hours

Formerly listed as: CLDDV 151: Advanced Administration of Children's Programs

Advanced Administration of Children's Pro Management and supervision in Early Care and Education programs. Includes strategic planning, group dynamics, supervision of staff and volunteers, development of motivation and morale, leadership and management skills, functions of personnel, interview skills, evaluations, human resource issues, resolving group conflicts and working with advisory boards. Designed to provide knowledge of methods and principles for working with adults in a supervisory capacity in Early Care and Education settings. This is a capstone course and it is expected that Students have completed the CORE Child Development courses (101, 103, 107, & 109). It is recommended that prior to taking this course, students have experience working in the field. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC CHILD 31)

CLDDV 154—ADULT RELATIONSHIPS & MENTORING IN SCHOOL 2 UNITS

36 Lecture Hours

Formerly listed as: CLDDV 154: Adult Relationship & Mentoring in School

Methods and principles of supervising student teachers, volunteers, staff, and other adults in early care and education settings. Emphasis is on the roles and development of early childhood professionals as mentors and leaders. Required for Master Teacher Permit and/or Site Supervisor Permit. This is a capstone course and it is expected that Students have completed the CORE Child Development courses (101, 103, 107, & 109) prior to enrolling. It is recommended that prior to taking this course, students have experience working in the field. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC CHILD 17)

CLDDV 160—INTRODUCTION TO CHILDREN WITH SPECIAL NEEDS 3 UNITS

54 Lecture Hours

Formerly listed as: CLDDV - 160: Atypical Development

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CLDDV 103 or satisfactorily complete ENGL 50.

Introduces the variations in development of children with special needs ages birth through eight and the resulting impact on families. Includes an overview of historical and societal influences, laws relating to children with special needs, and the identification and referral process. Field trips might be required. (A-For P/NP) Lecture. Not repeatable. **Transfer**: (CSU) **General Education**: (MJC-GE: B)

CLDDV 163— CURRICULUM AND STRATEGIES FOR CHILDREN WITH SPECIAL NEEDS 3 UNITS

54 Lecture Hours

Formerly listed as: CLDDV - 163: Working With Children With Special Needs

Prerequisite: Satisfactory completion of CLDDV 103.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Covers curriculum and intervention strategies for working with children with special needs in partnership with their families. Focuses on the use of observation and assessment in meeting the individualized needs of children in inclusive and natural environments. Includes the role of the teacher as a professional working with families, collaboration with interdisciplinary teams, and cultural competence. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC CHILD 19)

CLDDV 167—OBSERVATION AND ASSESSMENT 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of CLDDV 103 and CLDDV 163.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

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. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC CHILD 4) (C-ID: ECE 200)

CLDDV 173—AUTISM: OVERVIEW AND TREATMENT 3 UNITS

54 Lecture Hours

Basic concepts of autism. Topics include description, identification, interventions and treatments, and DIR Floor Time approach. Field trips might be required. (A-F or P/NP) Not repeatable. **Transfer**: (CSU)

CLDDV 262—DIVERSITY IN EDUCATIONAL SETTINGS 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of CLDDV 103.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

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 antibias 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. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) **General Education**: (MJC-GE: B) (CSU-GE: D7) (CC CHILD 36) (C-ID: ECE 230)

CLDDV 291—CREATIVE ACTIVITIES FOR YOUNG CHILDREN 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Develop, implement, and analyze developmentally appropriate creative experiences in the young child's learning process. Field trips might be required. (A-F or P/NP) Not repeatable. Lecture. **Transfer**: (CSU)

CLDDV 292—MATH & SCIENCE CURRICULUM FOR YOUNG CHILDREN 3 UNITS

54 Lecture Hours

Formerly listed as: CLDDV 292: Math & Science Curriculum for Young

Study of math and science exploration for young children. Evaluation and development of appropriate math and science activities and materials. Discussion of variations in developmental levels, inclusion of children with special needs, and respect of cultural differences. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC CHILD 12 & CHILD 13)

College Skills Courses (COLSK)

COLSK 100—FOUNDATION FOR FIRST YEAR COLLEGE SUCCESS 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and READ 82.

This multidisciplinary course provides first time in college students with an introduction to the purpose of higher education, acclimation process, and outcomes of higher education through the exploration of student development and personal growth principles and application. The course will focus on navigating the college environment, stages of development, life management skills, strategies for college success, health and wellness management, as well as techniques for maximizing abilities as lifelong learners. Students will examine the relationship between growth principles and the intellectual, social, physiological, and psychological aspects of student and personal development and well-being. Field trips might be required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (CC: GUIDE 18) **General Education**: (MJCGE: E) (CSU-GE: E)

Communication Studies Courses (COMM)

The Communication Studies Program at Modesto Junior College offers students a variety of courses which incorporate both theory and performance instruction. These include public speaking, argumentation and debate, organizational communication, intercultural and interpersonal communication, contest speaking and forensics competition which includes debate and individual events. The MJC Forensics Team has captured a number of state and national championships. The program also offers courses in practical speech communication and voice improvement. Most courses are available to students in both day and evening hours.

COMM 100—FUNDAMENTALS OF PUBLIC SPEAKING 3 UNITS

54 Lecture Hours

Formerly listed as SPCOM 100

Developing individual effectiveness in various speech activities, emphasis on public speaking; instruction and practice in selection, organization and presentation of materials. Development of self-confidence and listening skills. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC SPCOM 1) (C-ID: COMM 110) **General Education**: (MJC-GE: D2) (CSU-GE: A1) (IGETC: 1C)

COMM 102—INTRODUCTION TO HUMAN COMMUNICATION 3 UNITS

54 Lecture Hours

Formerly listed as SPCOM 102

A survey of the discipline of communication studies with emphasis on interpersonal contexts, group discussions, and individual presentations in public settings. This course explores issues relevant to the systematic inquiry and pursuit of knowledge about human communication including its history, principles, processes, assumptions, methods, and specializations of human communication as an academic field of study. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC SPCOM 4) (C-ID: COMM 115) **General Education**: (MJC-GE: D2) (CSU-GE: A1) (IGETC: 1C)

COMM 103—INTERPERSONAL COMMUNICATION 3 UNITS

54 Lecture Hours

Formerly listed as SPCOM 103

Principles of interpersonal communication including perceptual, verbal, and nonverbal elements. The study of interpersonal communication theory, research findings, concepts, and skills as applied within personal and professional relationships. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: COMM 130) **General Education**: (MJC-GE: B) (CSU-GE: D7) (IGETC: 4G)

COMM 104—ARGUMENTATION 3 UNITS

54 Lecture Hours

Formerly listed as SPCOM 104

Prerequisite: Satisfactory completion of ENGL 101.

Primary emphasis on argumentation as the study of analysis, evidence, reasoning, refutation and rebuttal, etc., in oral and written communication. Significant component of instruction in written argumentation, with special attention to the essay form. "Critical Thinking" approaches to commercial, legal, political, and academic argumentation and persuasion. Field trips might be required. (A-F or P/ NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC SPCOM 2) (C-ID: COMM 120) **General Education**: (MJC-GE: D2) (CSU-GE: A3) (IGETC: 1B)

COMM 105—INTERCOLLEGIATE FORENSICS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as: SPCOM 105: Forensics Debate, SPCOM - 105: Forensics Workshop

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete COMM 100 (Formerly SPCOM 100) or satisfactorily complete COMM 102 (Formerly SPCOM 102) or satisfactorily complete COMM 107 (Formerly SPCOM 107) or satisfactorily complete COMM 120 (Formerly SPCOM 120).

Preparation, including research and writing; for participation in intercollegiate speech and debate tournaments and/or community events as a judge and/or competitor. Field trips are required. Four completions allowed. (A-F or P/NP) Lecture. **Transfer**: (CSU) (CC SPCOM 7) (C-ID: COMM 160B) **Local Requirement**: (Activities)

COMM 106—GROUP & ORGANIZATIONAL COMMUNICATION 3 UNITS

54 Lecture Hours

Also offered as: SUPR 106

Formerly listed as: SPCOM 106: Organizational Communication

Communication within and between groups and organizations while enhancing individual communication skills. Emphasis on communication and organizational theory as basis for focus on such communication processes as task-oriented discussions, problem solving, leadership, conflict resolution and negotiation, communication climate, and organizational culture. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC SPCOM 9 or BUSAD 9) (C-ID: COMM 140) **General Education**: (MJC-GE: D2)

COMM 107—INTRODUCTION TO DEBATE 3 UNITS

54 Lecture Hours

Formerly listed as SPCOM 107

Methods of critical inquiry and advocacy. Identifying fallacies in reasoning and language, testing evidence and evidence sources, advancing a reasoned position, and defending and

refuting arguments. Analysis, presentation, and evaluation of oral and written arguments. Argumentation principles and the debate format. Emphasis on case construction, methods of attack and defense, communication strategies, and various forms of debate. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC SPCOM 2)(C-ID: COMM 120) **General Education**: (MJC-GE: D2) (CSU-GE: A3)

COMM 110—PERSUASION **3 UNITS**

54 Lecture Hours

Formerly listed as SPCOM 110

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete COMM 100 (Formerly SPCOM 100).

Development of abilities to plan and deliver persuasive presentations through a combination of methods involving the study of "real" communicative events; i.e., trials, sales presentations, political campaigns, sermons, etc., and the preparation and presentation of own works. Survey of recent research in attitude change and persuasive communication. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: COMM 190) **General Education**: (MJC-GE: D2) (CSU-GE: A1) (IGETC: 1C)

COMM 120—ORAL INTERPRETATION **3 UNITS**

54 Lecture Hours

Also offered as: THETR 120

Formerly listed as: SPCOM 120: Oral Reading / Interpretation

Skills in oral interpretation of literature; choice of material, involvement with material; communication of author's thought, emotion and language; expanded knowledge of literature and literary forms. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC DRAMA 20) (C-ID: COMM 170) **General Education**: (MJC-GE: C) (CSU-GE: C1)

COMM 122—INTRODUCTION TO READERS' THEATRE **3 UNITS**

54 Lecture Hours

Also offered as: THETR 122: Introduction to Readers' Theatre

Formerly listed as SPCOM 122

Study of oral interpretation principles as they apply to group and choral reading. Emphasis will be placed upon the preparation and performance of Readers' Theatre productions. Students are provided the necessary theory, practice for performance and criticism to enhance skills for development and oral presentation of Readers' Theatre material. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1)

COMM 123—STORYTELLING **3 UNITS**

54 Lecture Hours

Also offered as: THETR 123

Formerly listed as SPCOM 123

Introduction to the art of storytelling focusing on the preparation and presentation of literature. Emphasis is placed upon selection of materials, analysis, preparation, and presentation of various genres of stories. Designed to develop the adult reader's knowledge, critical ability and appreciation of literature, as well as critical listening of others sharing literature. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1)

COMM 124—ADVANCED READERS' THEATRE **3 UNITS**

54 Lecture Hours

Also offered as: THETR 124: Advanced Readers' Theatre

Formerly listed as SPCOM 124

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete COMM 122 (Formerly SPCOM 122) or satisfactorily complete THETR 122.

Continued development of the construction and direction of Readers' Theatre performances suitable for public presentation. Emphasis on analysis of reading materials and helping others enhance communication skills through vocal control and physical expression. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1)

COMM 130—INTERCULTURAL COMMUNICATION **3 UNITS**

54 Lecture Hours

Formerly listed as SPCOM 130

Examines the influence of culture on human communication. Students will learn skills to communicate effectively with people from different cultures. Theoretical and practical models are explored. Emphasis on cultural identity, relationships, stereotyping, prejudice, nonverbal and verbal cues, values, beliefs, and norms. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC SPCOM 5) (C-ID: COMM 150) **General Education**: (MJC-GE: B) (CSU-GE: D3, D7) (IGETC: 4C, 4G)

COMM 132—INTRODUCTION TO MASS COMMUNICATION **3 UNITS**

54 Lecture Hours

Survey of mass communication and the interrelationships of media with society including history, structure and trends in a digital age. Discussion of theories and effects, economics, technology, law and ethics, global media, media literacy, and social issues, including gender and cultural diversity. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C, D2) (CSU-GE: C1, D7) (IGETC: 3A, 4G) (C-ID: JOURN 100)

COMM 133—MEDIATED COMMUNICATION **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Principles of mediated (technology-enhanced) communication in personal and professional relationships. Explores the history, evolution, and utilization of technology in human interaction. Emphasis on the ways in which technology affects self-concept, perception, verbal and nonverbal communication, and emotions in human communication. Field trips are not required. (A-F or P/NP) Not repeatable. **Transfer**: (CSU) **General Education**: (MJC-GE: D2)

COMM 145—PARLIAMENTARY PROCEDURE **1 UNIT**

18 Lecture Hours

Also offered as: AGGE 145: Parliamentary Procedure

Formerly listed as SPCOM 145

Introduction to Parliamentary Procedure. Preparing for and participating in meetings as a member, officer and chairperson. Rank and use of motions. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

COMM 180AB—COMMUNICATION STUDIES LAB TUTORING 1 1- 2 UNITS

A= 9 Lecture Hours, 27 Lab Hours, B= 18 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of COMM 100 (Formerly SPCOM 100) or COMM 102 (Formerly SPCOM 102).

Formerly listed as SPCOM 180AB

Fundamental skills of tutoring in the Communication Studies Lab. Strategies for tutoring students enrolled in courses with an emphasis on public speaking will be learned. Teaching-learning techniques include assistance with thesis development, outlining, research and delivery skills. Intended for students selected as tutors for the Communication Studies Lab. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

COMM 400—ORGANIZATIONAL BEHAVIOR 3 UNITS

54 Lecture Hours

Limitations on Enrollment: Enrollment limited to students accepted into the Respiratory Care Baccalaureate Degree program.

The study of how people interact in organizations. Course covers a wide breadth of advanced theories and applications dealing with such topics as perception, motivation, decision making, team dynamics, negotiation, conflict management, leadership, and organizational culture. Development of a conceptual understanding of organizational behavior theories and practical applications. Key techniques and processes designed to improve organizational efficiency and effectiveness are fully examined from the perspective of management, workers, and society at large. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture.

Computer Electronics Courses (CMPET)

CMPET 206— PERSONAL COMPUTER ASSEMBLY UPGRADING & REPAIRING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CSCI 201 or concurrently enroll in CSCI 201.

An introductory course in assembling, upgrading and repairing of personal computer systems. Emphasis on hands-on laboratory activities with personal computer hardware. Operating principles of computer subsystems and peripheral devices. Use of diagnostic software and hardware tools. Multi-user system setup and maintenance. Materials fee required. Field trips might be required. Not repeatable. (A-F or P/NP) Lec/Lab. **Transfer**: (CSU)

CMPET 210— INTERMEDIATE PERSONAL COMPUTER SERVICING WITH A+ CERTIFICATION TRAINING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of CMPET 206 or CMPET/ELTEC 214.

Intermediate principles and practices of personal computer systems maintenance, upgrading and repair with an emphasis on preparation for A+ Computer Technician Certification administered by CompTIA. Contents include hardware and operating system setup, adding peripherals, communication and networking fundamentals, disaster recovery and supporting Windows NT. Lecture/Laboratory. Materials fee required. Not repeatable. **Transfer**: (CSU)

CMPET 212—DIGITAL PRINCIPLES AND CIRCUITS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ELTEC 208 and satisfactorily complete MATH 70.

Also offered as ELTEC 212

Introduction to digital circuits. Use and application of digital components in electronic devices controls and computers. Study of number systems, basic logic gates, counters, shift registers, A/D and D/A interfaces, and memories. Special emphasis on interfacing digital circuits to real-world input and output devices. Introduction to programmable logic devices. Prepares students for microprocessors and PLCs. This course is approved by the State of California for the DAS Electricians Apprenticeship program. Materials fee required. Field trips are not required. Not repeatable. (A-F or P/NP) **Transfer**: (CSU)

CMPET 214—MICROPROCESSOR PROGRAMMING AND INTERFACING 4 UNITS

36 Lecture Hours, 108 Lab Hours

Prerequisite: Satisfactory completion of ELTEC 212/CMPET 212

Also offered as ELTEC 214

Introduction to the structure and operation of microprocessors as controllers for today's electronic devices and systems. Basic microprocessor hardware including memories, registers, counters, input/output ports, decoders, and arithmetic logic using the popular PIC RISC microcontroller. Machine language simulation and development on personal computers. Emphasis on interfacing to electronic hardware. Materials fee required. Lecture/Laboratory. (A-F Only) Not repeatable. **Transfer**: (CSU)

CMPET 232— INTRODUCTION TO PROGRAMMABLE LOGIC CONTROLLERS 2 UNITS

18 Lecture Hours, 54 Lab Hours

Also offered as ELTEC 232

Formerly listed as CMPET 232 - Introduction to Programmable Logic

Introduction to the basic concepts of Programmable Logic Controllers. Installation, programming, maintaining, and trouble shooting of micro-sized programmable logic controller systems. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CMPET 269—NETWORK + CERTIFICATION TRAINING LAB 1 UNIT

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to complete any introductory computer course.

This course employs hands-on laboratory activities to explore computer networks, network devices, and the "Internet of Things". Materials fee required. Field trips might be required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU)

CMPET 302— INTRODUCTION TO INDUSTRIAL NETWORKING WITH DEVICENET 1 UNIT

18 Lecture Hours

Instruction on DeviceNet which is an open architecture system of smart sensors, controllers, and I/O all linked together on a common network and controlled by a PC that may or may not be networked to other PC's. Exploration of device level hardware and software. Lecture. Not repeatable.

Computer Graphics Courses (CMPGR)

CMPGR 202—INTRODUCTION TO COMPUTER GRAPHICS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Also offered as ART 102 - Introduction to Computer Graphics

Formerly listed as: CMPGR - 102: Introduction to Computer Graphic

Introduction to computer graphics using various applications and tools. Topics explored include but are not limited to: original image creation, photographic editing, scanning, printing, 3D-animation, sound, digitizing pens, mouse, and digital cameras. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1)

CMPGR 213—APPLIED COMPUTER GRAPHICS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files.

Concepts and techniques in computer graphics as related to fine and applied art applications. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CMPGR 215—BUSINESS PRESENTATION GRAPHICS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files.

The use of a computer as a vehicle for preparing, producing, and controlling the presentation of visuals within the business environments. Hardware and peripheral equipment as well as commercially available software will be covered. Emphasis is placed on the use of existing commercially available software with "hands on" experience being provided in an open lab environment. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) (CC CCTIS 137)

CMPGR 217—COMPUTER ILLUSTRATION SOFTWARE 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files.

Introduction to illustration software as applied to visual and data presentations. Explores the techniques and tools used by artists, designers, and illustrators to produce artwork for print, publishing, multi-media graphics, web page design or illustration. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CMPGR 219—COMPUTER GRAPHICS PORTFOLIO REVIEW 1 UNIT

18 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have a basic working knowledge of personal computers including: turning on and off a computer system correctly; starting programs, moving and resizing windows, the Start Menu, understanding how your computer is organized; manipulating a mouse, including selecting, double clicking, and dragging items; naming, saving, and deleting files; using portable flash memory and other common storage devices.

Prepares the student majoring in or receiving a certificate in Computer Graphics, Commercial, or Fine Art with the necessary visual and business skills to develop a portfolio; emphasizes the creative and applied business needs for individuals entering their respective professional field. Field trips might be required.(A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

CMPGR 225—3D GRAPHICS AND ANIMATION 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have a basic working knowledge of personal computers including: turning on and off a computer system correctly; starting programs, moving and resizing windows, the Start Menu, understanding how your computer is organized; manipulating a mouse, including selecting, double clicking, and dragging items; naming, saving, and deleting files; using portable flash memory and other common storage devices.

Graphic and animation techniques utilizing microcomputers and 3D software. 3D modeling, scene composition, materials editing, object and camera movement, character development, and story boarding will be explored. Students will have intensive hands-on experience with IBM or MAC graphic systems and related peripheral devices. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CMPGR 226—3D GRAPHICS AND ANIMATION 2 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have successfully completed CMPGR 225.

Continued development of 3D modeling and animation skills. Storyboarding, integration of 3D software with other industry standard applications. Finished animation production techniques. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CMPGR 235—BEGINNING PHOTOSHOP 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as Image Manipulation Software

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CMPGR 202/ART 102.

Introduction to the techniques and technology of digital imaging and image manipulation software. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CMPGR 236—ADVANCED PHOTOSHOP 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as Advanced Photoshop Applications

Recommended for Success: Before enrolling in this course, students are strongly advised to have satisfactorily completed CMPGR 235.

Advanced skills in Adobe Photoshop including layout and publication, image processing, fine art and illustration. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not

repeatable. **Transfer**: (CSU)

CMPGR 252—DESKTOP PUBLISHING FOR COMPUTER GRAPHICS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files.

Desktop publishing concepts with hands-on training in the use of computers, printers, scanners, and various page-layout applications; text and graphics will be integrated into documents and publications typically used in a range of computer graphics disciplines. Field trips might be required. (A-F or P/NP) Not repeatable. Lecture/Lab. **Transfer**: (CSU)

CMPGR 263—INTERNET LITERACY 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files.

Provides the conceptual background and the online skills needed to become Internet literate. Covers Internet services: e-mail, listserv, newsgroups, FTP, telenet and the World Wide Web (WWW). Emphasis will be placed on the WWW, types of access (ISP), usage, software (browsers and other support software) and Internet etiquette in a global environment. Introduction to publishing and multimedia. Usage of search engines to conduct research and copyright issues and bibliographic style. Reflects on the impact of emerging technologies on the future of commerce and communications as well as societal issues. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CMPGR 266—INTERACTIVE MEDIA DESIGN AND DEVELOPMENT 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have a basic working knowledge of personal computers including: turning on and off a computer system correctly; starting programs, moving and resizing windows, the Start Menu, understanding how a computer is organized; manipulating a mouse, including selecting, double clicking, and dragging items; naming, saving, and deleting files; using portable flash memory and other common storage devices.

This course provides students with an introductory and timely exploration of the tools and processes in the design and development of interactive media content. It covers best practices for interactive media content creation, including text, image, animation, audio and video elements as well as copyright issues, and guidelines for accessibility and usability within the work. Field trips might be required. (A-F or P/ NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CMPGR 267—DREAMWEAVER IN WEB SITE DESIGN 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files.

Macromedia's Dreamweaver web design software, including templates, libraries, Cascading Style Sheets, and FTP. Strategies for creating intuitive and accessible web sites such as audience considerations, site map and navigational building, and testing. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CMPGR 268—FLASH: WEB GRAPHICS AND ANIMATION 1 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 102 or satisfactorily complete CMPGR 202.

Instruction to Micromedia's Flash. Covers the tools and concepts of Flash and its many interactive possibilities and functions, including drawing, image, text, animation, sound, and action-scripting Integration. Explores the strategies for creating intuitive and accessible Flash productions from start-to-finish, such as audience considerations, site map and navigation building, and the effective use of content and animation, output, optimization, and testing. Field trips are not required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) (CC CMPSC 19)

CMPGR 284—BEGINNING AFTER EFFECTS 3 UNITS

Formerly listed as: CMPGR 284: Desktop Video Animation

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files.

Fundamental skills in animation and special effects concepts and techniques utilizing computers and digital video media. Field trips are not required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) **Local Requirement**: (Activities)

Computer Science Courses (CSCI)

CSCI 200—TECHNICAL COMPUTER LITERACY 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 203

Concepts and techniques for using microcomputer applications. Instruction and extensive practice in Windows, word processing, spreadsheets, database management, internet basics, file transfer between applications, and related auxiliary applications. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) **General Education**: (MJC-GE: D2)

CSCI 201— GENERAL COMPUTER LITERACY 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 201

Survey of the functions and uses of computers in business, education, industry, and science, with emphasis on the personal computer. Study of computers and peripheral equipment as integrated systems. Exploration of the impact of computers on society. Introduction to problem-solving and applications programming techniques. Experience with popular internet and application packages on the laboratory computers. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: D2)

CSCI 203—SYMBOLIC LOGIC **3 UNITS**

54 Lecture Hours

Formerly listed as CMPSC 103

Also offered as PHILO 103.

An introduction to the principles of valid deductive reasoning, including both sentential and predicate logic. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: PHIL 210) **General Education**: (MJC-GE: D2) (CSU-GE: A3)

CSCI 204—DISCRETE STRUCTURES FOR COMPUTER SCIENCE **3 UNITS**

27 Lecture Hours, 81 Lab Hours

Formerly listed as CMPSC 219

Prerequisite: Satisfactory completion of CSCI 271 (Formerly CMPSC 205) and MATH 90 or qualification by the MJC assessment process.

Introduction to computational topics essential for work in Computer Science. Topics include: number bases, induction, sets, relations, functions, congruence, recursion, combinations and permutations, probability, graphs, trees, logic, Boolean algebra, and proof techniques. Computing related problems and examples are integrated throughout the course. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: COMP 152) **General Education**: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

CSCI 210—INTRO TO UNIX/LINUX SYST & PROGRAMMING **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 206

Prerequisite: Satisfactory completion of CSCI 270 (Formerly CMPSC 204).

Introduction to the UNIX operating system using Linux. Coverage will include using UNIXshells, commands, the role of the system administrator, the UNIX file system, editors, file processing, shell programming, utilities, PERL and CGI programming, C and C++ programming, and recent developments in UNIX and the X Windows graphical user interface. Extensive hands-on experience using UNIX operating system and programming within the UNIX environment. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

CSCI 211—UNIX/LINUX ADMINISTRATION **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 210

Prerequisite: Satisfactory completion of CSCI 210 (Formerly CMPSC 206).

This course guides students through the fundamental responsibilities of advanced UNIX/Linux system administration. Topics include file system monitoring, file and directory archiving, user account management, shutdown and rebooting sequences, system backups, system log responsibilities, system security and, configuration, monitoring and implementation of Web/DNS/Mail servers. Projects focus on the creation of shell scripts to automate system administration tasks. The course requires hands-on projects and scenario-based learning. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

CSCI 213—WINDOWS SERVER OS **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 264

Prerequisite: Satisfactory completion of CSCI 240 (Formerly CMPSC 263).

Technical study of the Windows Server operating system. Includes server hardware, installation, configuration, clients, management, network protocols, active directory and security, remote access and virtual private networks, interoperability, Internet and intranets, monitoring, tuning, and troubleshooting. Hands-on computer assignments required. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) **General Education**: (MJC-GE: D2)

CSCI 220—BUSINESS INFORMATION SYSTEMS **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Formerly listed as: CMPSC 202: Business Information Systems

Prerequisite: Satisfactory completion of CSCI 201 (Formerly CMPSC 201), CSCI 270 (Formerly CMPSC 204), or CSCI 200 (Formerly CMPSC 203).

Introduction to design, development, and use of information system models to improve managerial decision making. Study of information systems hardware and software; advanced computer codes; systems analysis and planning; systems security; application development using decision support systems; and expert systems. Lab work will focus on Internet research and advanced spreadsheet, database, and word processor functions for solutions to business problems. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: ITIS 120) (CC CCTIS 10)

CSCI 221—PROGRAMMING WITH VISUAL BASIC **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 213

Prerequisite: Satisfactory completion of CSCI 270 (Formerly CMPSC 204) with a minimum grade of C or better.

Concepts in programming a computer using the language called Visual BASIC. Emphasis on structured design, graphical user interfacing, and documentation. Includes user screen development, control constructs, array processing, elementary file processing, and database access. Hands-on experience using microcomputers. Extensive interaction with computers will be expected. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC CCTPG 48) **General Education**: (MJC-GE: D2)

CSCI 222—ADVANCED VISUAL BASIC **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 214

Prerequisite: Satisfactory completion of CSCI 221 (Formerly CMPSC 213) with a minimum grade of C or better.

Advanced concepts of computer programming using Microsoft Visual BASIC. Students will program user interfaces with Microsoft Word, Excel and Access. They will also create Internet and general business interfaces. Graphics and game structure applications will be covered. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

CSCI 223—SPREADSHEET SOFTWARE **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 278

Introduction to spreadsheet software. Spreadsheet analysis, design, testing and documenting will be covered. Data entry, data management, graphing and keystroke macros will be emphasized. Applications in various areas will be explored with emphasis in business, professional, and educational use. Hands-on experience using a microcomputer. Emphasis on Microsoft Excel or similar spreadsheet application. Field trips are not required.

Not repeatable. (A-F or P/NP) **Transfer**: (CSU) (CC: CCTIS 30)

CSCI 224—INTERMEDIATE WORD PROCESSING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 231

Also offered as: OFADM 231: Intermediate Word Processing

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 203 and/or satisfactorily complete OFADM 330.

Intermediate word processing features such as mail merge, styles, graphics, tab, and sorts. Features will be applied in creating business documents. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) (CC OFTEC 141)

CSCI 230—DATABASE MANAGEMENT SYSTEMS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as: CMPSC 275: Database Management Systems/

Microcomputer, CMPSC 275: Database Management Systems/Microcomputer

Prerequisite: Satisfactory completion of CSCI 200 (Formerly CMPSC 203) or CSCI 201 (Formerly CMPSC 201) or CSCI 270 (Formerly CMPSC 204).

Introduction to database management systems (DBMS). Instruction on the design, setup and maintenance of a DBMS. Applications in inventory control, mailing lists, report, report construction and format, sorting and indexing operations, general file relationships and information retrieval. Hands-on experience using a microcomputer. Emphasis on desktop DBMS such as Microsoft Access. Field trips might be required. (A-F or P/NP) Not repeatable. Lecture/Lab. **Transfer**: (CSU) (CC CCTPG 51) **General Education**: (MJC-GE: D2)

CSCI 231—DATABASE PROGRAMMING WITH SQL 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 225 - SQL Database Implementation

Prerequisite: Satisfactory completion of CSCI 230 (Formerly CMPSC 275) or CSCI 270 (Formerly CMPSC 204).

Provides students with the technical skills required to implement a database solution with SQL Server. Topics include: architecture, key features of SQL Server, reviewing SQL Server programming tools, Transact-SQL, creating databases, data integrity, planning and creating indexes, advanced query techniques, summarizing data, managing transactions and locks, implementing views, stored procedures and triggers, working with distributed data, and advanced text queries. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CSCI 232—DATABASE SERVER ADMINISTRATION 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 220 - SQL Server Administration

Recommended for Success: Before enrolling in this course, students are strongly advised to have prior experience working with computer server systems or first complete CMPSC 264 - Windows Server OS course.

Provides students with the knowledge and skills required to install, configure, administer, and troubleshoot various SQL Server client/server database management systems. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CSCI 240—NETWORKING ESSENTIALS 4 UNITS

54 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 263

Prerequisite: Satisfactory completion of CSCI 201 (Formerly CMPSC 201).

Concepts of networking technologies. Includes networking standards and the OSI model, transmission basics and media, TCP/IP protocols, topologies and Ethernet standards, hardware, WANs and remote connectivity, wireless networking, network operating systems, voice and video over IP, network security, network troubleshooting, integrity and availability of networks, and network management. Designed to assist individuals preparing for various certifications. Hands-on computer assignments required. Materials Fee Required. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CSCI 241—ADVANCED NETWORKING & SECURITY 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 281

Prerequisite: Satisfactory completion of CSCI 213 (Formerly CMPSC 264).

Technical study of security for networks. Includes assessing security risks, planning administrative access and user accounts, securing communication channels, securing file and print resources, secure access to remote users and offices, secure network access to Internet users, extending the network to partner organizations, designing a public key infrastructure, and developing a security plan. Hands-on computer assignments required. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CSCI 242—DIRECTORY SERVICES 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 289

Recommended for Success: Before enrolling in this course, students are strongly advised to either complete CSCI 213 (Formerly CMPSC 264), Windows Server, or have experience managing business server systems.

Technical study of Directory Services using tools such as LDAP and Active Directory. Includes the design and implementation of directory services, analyzing business requirements, information technology structures, software, hardware and network requirements, large and small scale directory services design, group policy design, design topology and locations, replication and disaster recovery. Hands-on computer assignments required. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

CSCI 250—PUBLISHING ON THE WORLD WIDE WEB 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPGR 264

Development, components, and impact of the World Wide Web. Publishing of personal and professional documents for access on the Web. Use of Web browsers and supporting applications including editors, convertors, graphical generators, and manipulators. Coverage of hypertext (HTML) and portable document format coding. Search tools and strategies for information and resource retrieval, and downloading files from FTP sites. Introduces design concepts. Extensive hands-on experience. Field trips are not required.

(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) (CC CCTDM 12)

CSCI 252—SCRIPT PROGRAMMING FOR THE WEB 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 216 - Javascript Programming for the Internet

Prerequisite: Satisfactory completion of CSCI 270 (Formerly CMPSC 204).

Developing World Wide Web applications with HTML and scripting tools such as python, javascript, ruby and perl. An introduction to creating interactive HTML documents through manipulation of the WWW DOM (Document Object Model). Designing Web-based applications, validating and processing user input, creating dynamic documents utilizing DHTML. Extensive programming projects demonstrating problem solving and implementation skills will be assigned throughout the semester. Hands-on computer assignments required. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

CSCI 253—WEB DATABASE DEVELOPMENT 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 276 - Introduction to Data Warehousing

Prerequisite: Satisfactory completion of CSCI 230 (Formerly CMPSC 275) or CSCI 231 (Formerly CMPSC 225) or CSCI 232 (Formerly CMPSC 220).

Introduction to Web Database development. Emphasizes heterogeneous database design, optimization and reporting in a web database environment. This class will use industry standard tools and techniques with a variety of databases and programming tools. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) **General Education**: (MJC-GE: D2)

CSCI 270—INTRODUCTION TO PROGRAMMING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as: CMPSC - 204: Introduction to Programming

First course in computer programming compliant with the standards of the Association for Computing Machinery (ACM). This course is for students with little or no programming experience. General computer literacy issues useful for technicians such as computer hardware, software development, operating systems, and telecommunications. Beginning problem-solving analysis, documentation, algorithm design, control structures, as well as program coding using an appropriate beginning programming language. Data manipulation, logic, looping, program testing, and program maintenance will be stressed. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

CSCI 271—PROBLEM SOLVING AND PROGRAMMING 1 3 UNITS

27 Lecture Hours, 81 Lab Hours

Formerly listed as CMPSC 205

Prerequisite: Satisfactory completion of CSCI 270 (Formerly CMPSC 204).

First course for Computer Science Transfer majors, but open to all students. Emphasizes object-oriented programming, algorithmic design, and problem analysis skills for computer science. Software engineering skills will be emphasized. Solutions will be implemented using a high-level object-oriented programming environment such as, C++, C#, or JAVA. Extensive programming projects demonstrating problem solving and implementation skills will be assigned throughout the semester. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC CCTPG 22) (C-ID: COMP 122) **General Education**: (MJC-GE: D2)

CSCI 272—PROBLEM SOLVING AND PROGRAMMING 2 3 UNITS

27 Lecture Hours, 81 Lab Hours

Formerly listed as CMPSC 261

Prerequisite: Satisfactory completion of CSCI 271 (Formerly CMPSC 205).

Introduction to data structures implemented using object-oriented design. Includes more advanced features of high-level languages such as C++ or Java. Continued emphasis on good programming methodologies and problem solving techniques and analysis. Emphasis on algorithm efficiency, recursive algorithms, and linked lists, stacks, queues, and trees. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC:CCTPG 24) (C-ID: COMP 132) **General Education**: (MJC-GE: D2)

CSCI 273—ASSEMBLY LANGUAGE PROGRAMMING 3 UNITS

27 Lecture Hours, 81 Lab Hours

Formerly listed as CMPSC 241

Prerequisite: Satisfactory completion of CSCI 271 (Formerly CMPSC 205).

First course in computer architecture and assembly language programming. Data representation and manipulation, CPU organization and memory, addressing modes, logic and control, table processing, and I/O control processes will be examined. Macros, program modules, and interrupts will be studied. Extensive hands-on computer projects implementing course objectives will be assigned. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: COMP 142) **General Education**: (MJC-GE: D2)

CSCI 274—WINDOWS PROGRAMMING WITH VISUAL STUDIO 4 UNITS

54 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 291 - Windows Programming With Visual C++

Prerequisite: Satisfactory completion of CSCI 271 (Formerly CMPSC 205).

Windows Programming using the Microsoft Visual Studio environment. Review of object-oriented programming and problem solving concepts. Emphasis on designing user applications, event-driven programming, debugging and exception handling, object-based file handling, database access, web-based and smart device applications, and advanced programming techniques. Hands-on computer programming projects will be required. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: D2)

CSCI 290—COMPUTER SCIENCE FINAL PROJECT 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 294

Limitations on Enrollment: The students are required to bring the skills of their individual specializations, based on their 18 Hours of coursework in either Information Systems, Networking, or Programming to form teams and solve a collaborative real-world IT industry level of problem application.

Culminating experience for students pursuing an Associate of Science degree in Computer Science. Objectives of degree courses will be integrated into a final managed project advised by one or more Computer Science faculty. Effective project and team management will be emphasized. Field trips might be required.(A-F or P/NP) Lecture/

Lab. Not repeatable. **Transfer**: (CSU)

Dance Courses (DANCE)

Dance as an academic discipline focuses on dance as a performing art, as well as its social functions in other areas, including education, health, cultural studies, art, history, and the science of human movement.

DANCE 102—INTRODUCTION TO WORLD DANCE **3 UNITS**

Formerly listed as: THETR 194/PE 194: Introduction to World Dance

54 Lecture Hours

A survey of dance and its development as an art form through social, political and cultural context. Investigation of cultural traditions and styles, values, aesthetics and mores will be explored. Field trips might be required. Not repeatable. (A-F Only) Lecture. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

DANCE 111—MODERN DANCE 1 **1 UNIT**

Formerly listed as: THETR 185/PEC 122: Modern Dance 1

54 Lab Hours

Basic modern dance technique, beginning composition, improvisation, dance history, and philosophy. Dance as an art form and as recreation. Field trips are not required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

DANCE 112—MODERN DANCE 2 **1 UNIT**

Formerly listed as: THETR 186/PEC 123: Modern Dance 2

54 Lab Hours

Prerequisite: Satisfactory completion of DANCE 111

Introduction, exploration, and experience in choreography and performance. Movement through space, energy and time, and compositional form. Field trips are not required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

DANCE 113—MODERN DANCE 3 **1 UNIT**

Formerly listed as: THETR 187/ PEC 124: Modern Dance 3

54 Lab Hours

Prerequisite: Satisfactory completion of DANCE 112

Emphasis on advanced technical and artistic performance skills, composition, improvisation, partnering, and dance history. Field trips are not required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

DANCE 114—MODERN DANCE 4 **1 UNIT**

Formerly listed as: THETR 176/PEC 149: Modern Dance 4

54 Lab Hours

Prerequisite: Satisfactory completion of DANCE 113

Learn, practice and apply intermediate modern dance skills learned in Modern Dance 3 toward the refinement of technical and artistic expression characteristic of advanced level technique. Field trips might be required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

DANCE 121—BALLET 1 **1 UNIT**

Formerly listed as: PEC – 133/THETR 189: Ballet 1

54 Lab Hours

Fundamental ballet technique and terminology. Students are required to have appropriate dance shoes and dance attire. Field trips might be required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

DANCE 122—BALLET 2 **1 UNIT**

Formerly listed as: PEC 127/THETR 177: Ballet 2

54 Lab Hours

Prerequisite: Satisfactory completion of DANCE 121

Intermediate level ballet technique and terminology. Students are required to have appropriate dance shoes and dance attire. Field trips might be required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

DANCE 123—BALLET 3 **1 UNIT**

Formerly listed as: THETR 117/PEC 139: Ballet 3

54 Lab Hours

Prerequisite: Satisfactory completion of DANCE 122

Intermediate/Advanced level ballet technique and terminology. Audition and instructor approval required. Field trips might be required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

DANCE 124—BALLET 4 **1 UNIT**

Formerly listed as: THETR 118/PEC 146: Ballet 4

54 Lab Hours

Prerequisite: Satisfactory completion of DANCE 123

Advanced level ballet technique and terminology. Audition and instructor approval required. Field trips might be required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

DANCE 131—JAZZ 1 **1 UNIT**

Formerly listed as: THETR 188/PEC 126: Jazz 1

54 Lab Hours

Beginning Technique of Jazz Dance with explorations into contemporary derivations of jazz. Emphasis on technical style of this form, and to the interrelationships of music and movement. Field trips might be required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) L**ocal Requirement**: (Activities)

DANCE 132—JAZZ 2 **1 UNIT**

Formerly listed as: THETR 129/PEC 129: Jazz 2

54 Lab Hours

Prerequisite: Satisfactory completion of DANCE 131

Intermediate technique of Jazz Dance with explorations into contemporary derivations of jazz. Emphasis on technical style of the form and the interrelationship of music and movement. Field trips are not required. Not repeatable. (A-F or P/NP) Lab. **Transfer:**

(CSU, UC) **Local Requirement**: (Activities)

DANCE 133—JAZZ 3 INTERMEDIATE/ADVANCED 1 UNIT

Formerly listed as: THETR 130/PEC 132: Jazz 3 Intermediate/Advanced

54 Lab Hours

Prerequisite: Satisfactory completion of DANCE 132

This course is a continuation of Jazz 2. This course is a combined intermediate and advanced Jazz Dance Technique class that will continue to build on dance terminology in theory and practical training. Audition required. Field trips are not required. Not repeatable. (A-F or P/NP) Lab. Transfer: (CSU, UC) Local Requirement: (Activities)

DANCE 141—HIP HOP 1 UNIT

Formerly listed as: THETR 170/PEC 120: Hip Hop

54 Lab Hours

Fundamental skills of hip hop dance derived from the current dance vernacular and culture. Dance movement education, exploration, and recreation. Field trips are not required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) Local Requirement: (Activities)

DANCE 151—MOVEMENT FOR THE PERFORMING ARTIST 3 UNITS

Formerly listed as: THETR - 195: Movement for the Performing Artist

45 Lecture Hours, 27 Lab Hours

Introduction to the fundamentals of movement as applied to body awareness, motor efficiency, and basic compositional components. Exploration of qualities and dynamics in performance through technique, improvisation, and compositional studies. Field trips are required. Not repeatable. (A-F Only) Lec/Lab. **Transfer**: (CSU, UC) Local Requirement: (Activities)

DANCE 155—FUNDAMENTALS OF CHOREOGRAPHY 1 2 UNITS

Formerly listed as: THETR 131: Fundamentals of Choreography 1

18 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete DANCE 111

Introduction to the creative process of composing dance. Compositional components will be explored, crafted, and aesthetically analyzed. The elements of dance and performance qualities will be explored through technical practice, improvisation, and compositional studies. Field trips might be required. Not repeatable. (A-F or P/NP) Lec/Lab. **Transfer**: (CSU, UC) Local Requirement: (Activities)

DANCE 181—DANCE REHEARSAL & PERFORMANCE 1 2 UNITS

Formerly listed as: THETR 151: Dance Rehearsal & Performance 1

108 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass an audition.

This course is designed to provide students with the opportunity for intensive preparation, performance, and appraisal of choreography for public performances. Field trips might be required. Not repeatable. (A-F Only) Lab. **Transfer:** (CSU, UC) Local Requirement: (Activities)

DANCE 182—DANCE REHEARSAL & PERFORMANCE 2 2 UNITS

Formerly listed as: THETR 152: Dance Rehearsal & Performance 2

108 Lab Hours

Prerequisite: Satisfactory completion of DANCE 181

Limitations on Enrollment: Enrollment limited to students who successfully pass an audition.

Study, production and performance of dance. Field trips might be required. Not repeatable. (A-F Only) Lab. **Transfer**: (CSU, UC) Local Requirement: (Activities)

DANCE 183—DANCE REHEARSAL & PERFORMANCE 3 2 UNITS

Formerly listed as: THETR 154: Dance Rehearsal & Performance 3

108 Lab Hours

Prerequisite: Satisfactory completion of DANCE 182

Limitations on Enrollment: Enrollment limited to students who successfully pass an audition.

This course is designed to provide students with the opportunity to participate in a concert dance production as a dancer and or choreographer. Field trips might be required. Not repeatable. (A-F or NP) Lab. **Transfer:** (CSU, UC) Local Requirement: (Activities)

DANCE 184—DANCE REHEARSAL & PERFORMANCE 4 2 UNITS

Formerly listed as: THETR 168: Dance Rehearsal & Performance 4

108 Lab Hours

Prerequisite: Satisfactory completion of DANCE 183.

Limitations on Enrollment: Enrollment limited to students who successfully pass an audition.

This course is designed to provide students with the opportunity to participate in an intensive preparation for public performance as choreographed by faculty, visiting artists, and/or students. Field trips might be required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) Local Requirement: (Activities)

DANCE 187— CONTEMPORARY POP DANCE REHEARSAL AND PERFORMANCE 2 UNITS

Formerly listed as: THETR 153: Contemporary Pop Dance Rehearsal and Performance

108 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass an audition.

Contemporary Pop dance rehearsal and public performance. Audition required. Field trips are not required. Not repeatable. (A-F Only) Lab. **Transfer**: (CSU, UC) Local Requirement: (Activities)

DANCE 188—DANCE WORKSHOP PERFORMANCE 2 UNITS

Formerly listed as: THETR 155: Dance Workshop Performance

108 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass an audition.

This course provides the opportunity for students to create original choreography and or

perform in a student showcase. All phases of the dance concert process from auditions to rehearsal to backstage preparation will be covered. Audition required. Field trips might be required. Not repeatable. (A-F Only) Lab. **Transfer**: (CSU, UC) Local Requirement: (Activities)

DANCE 189—DANCE REPERTORY TOURING COMPETITION 1 UNIT

Formerly listed as: THETR 149: Dance Repertory Touring Competition

54 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass an audition.

Preparation of dance participants for attendance at the American College Dance Festival and other competitive conferences. Four completions allowed. Field trips might be required. (A-F Only) Lab. **Transfer**: (CSU, UC) Local Requirement: (Activities)

Earth Science Courses (EASCI)

EASCI 161—EARTH SCIENCE 4 UNITS

54 Lecture Hours, 54 Lab Hours

An introductory study of the several branches of earth science: geology, oceanography, meteorology, and astronomy. Topics include the scientific method, natural resources, minerals, rocks, volcanism, plate tectonics, earthquakes, weathering, erosion, geological time, fresh water, ocean water, ocean currents, the ocean floor, atmosphere, clouds, storms, climate, the sun, the moon, the solar system, stars, interstellar matter, and the formation of the universe. Field trips are required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC ESC 33) (C-ID: GEOL 121) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

EASCI 162—INTRODUCTION TO OCEANOGRAPHY 4 UNITS

54 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EASCI 161 and satisfactorily complete MATH 70.

An introductory study of oceanography, the study of the world's oceans. Topics include the ocean's role in the earth system, marine geography, ocean basins and plate tectonics, ocean water, ocean chemistry, marine sediments, ocean-atmosphere interaction, ocean currents, ocean waves and tides, coastal processes, marine ecosystems, ocean life, ocean and climate, oceanographic techniques, and ocean stewardship. Lab activities emphasize gathering and analysis of oceanographic data to understand and predict oceanographic phenomena. Field trips are required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC ESC 50) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

Economics Courses (ECON)

ECON 101—PRINCIPLES OF MACROECONOMICS 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of MATH 70 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 90.

Introduction to macroeconomic theory in the context of managed market economy. Covers basic concepts in economics, particularly those relating to aggregate economic analysis, such as scarcity, trade-offs, and opportunity costs. Topics include: market systems, aggregate measures of economic activity, macroeconomic equilibrium, money and financial institutions, monetary and fiscal policy, international economics, and economic growth. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ECON 10) (C-ID: ECON 202) **General Education**: (MJC-GE: B) (CSU-GE: D2) (IGETC: 4B)

ECON 102—PRINCIPLES OF MICROECONOMICS 3 UNITS

54 Lecture Hours

Formerly listed as: ECON 102: Economic Principles: Microeconomics

Prerequisite: Satisfactory completion of MATH 70 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 90.

An introductory course focusing on individual economic decision-making. Topics include scarcity, opportunity costs, comparative advantage, market structure and market failure, elasticity, cost theory, price and output determination under various market structures and factor markets. Related topics such as international trade, public choice, income distribution, externalities and government regulation may be included. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ECON 11) (C-ID: ECON 201) **General Education**: (MJC-GE: B) (CSU-GE: D2) (IGETC: 4B)

ECON 115—ECONOMIC HISTORY OF THE UNITED STATES 3 UNITS

54 Lecture Hours
Also offered as: HIST - 115

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Analysis of origins and development of business, infrastructure, labor, and agriculture from colonial period to present. Emphasis on federal government's role in development and regulation of business, infrastructure, labor and agriculture; government's role in national economic policy. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D2, D6), (IGETC: 4B, 4F)

Electronics Technology Courses (ELTEC)

ELTEC 205— ELECTRONICS FABRICATION AND ASSEMBLY TECHNIQUES 3 UNITS

36 Lecture Hours, 54 Lab Hours

Introduction to fabrication and assembly techniques used in the electronics industry. Soldering, circuit board repair, and component identification, manual and automated techniques used in circuit assembly and product manufacture are included. Materials fee required. Field trips are not required. (A-F or P/NP) Lecture/Lab. Not repeatable.

Transfer: (CSU)

ELTEC 208—FUNDAMENTALS OF ELECTRICITY AND ELECTRONICS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as: ELTEC - 208: The World of Electricity and Electronics

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 20.

An overview of electrical and electronic phenomena as applied to common consumer and industrial devices. The course examines the physical nature and laws of electricity and magnetism and the application of the scientific method. DC and AC circuits and their characteristics are examined, predicted, and measured. Electronic test equipment and voltage sources are utilized in the construction, troubleshooting and testing of electrical and electronic circuits. The historical development and the socioeconomic aspects of the "electronic age" are also examined. **This course is approved by the State of California for the Department of Apprenticeship Standards (DAS) Electricians Training Program. Materials fee required. Field trips are not required. Not repeatable. (A-F or P/NP) Lec/Lab. **Transfer**: (CSU) **General Education**: (MJC-GE: A)

ELTEC 212—DIGITAL PRINCIPLES AND CIRCUITS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Also offered as CMPET 212

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ELTEC 208 and satisfactorily complete MATH 70.

Introduction to digital circuits. Use and application of digital components in electronic devices controls and computers. Study of number systems, basic logic gates, counters, shift registers, A/D and D/A interfaces, and memories. Special emphasis on interfacing digital circuits to real-world input and output devices. Introduction to programmable logic devices. Prepares students for microprocessors and PLCs. This course is approved by the State of California for the DAS Electricians Apprenticeship program. Materials fee required. Field trips are not required. Not repeatable. (A-F or P/NP) Lec/Lab. **Transfer**: (CSU)

ELTEC 214—MICROPROCESSOR PROGRAMMING AND INTERFACING 4 UNITS

36 Lecture Hours, 108 Lab Hours

Also offered as CMPET 214

Prerequisite: Satisfactory completion of ELTEC 212 or CMPET 212.

Introduction to the structure and operation of microprocessors as controllers for today's electronic devices and systems. Basic microprocessor hardware including memories, registers, counters, input/output ports, decoders, and arithmetic logic using the popular PIC RISC microcontroller. Emphasis on interfacing to electronic hardware. Materials Fee Required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ELTEC 221—INSTRUMENTATION DEVICES AND SYSTEMS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of ELTEC 208.

An introduction to industrial instrumentation devices and systems. Principles and operation of mechanical and electrical transducers. Analysis of industrial instrumentation and control systems. Course is approved by the State of California for the DAS Electricians Training program. Field trips are not required. (A-F or P/ NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ELTEC 223— INDUSTRIAL ELECTRICAL COMPONENTS AND CONTROL DEVICES 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ELTEC 208.

An introduction to common components and control devices found in the manufacturing and processing industry. Content includes basic terminology, component identification, manufacturer's specifications, and maintenance procedures for the components and devices. Field trips are not required. Not repeatable. (A-F Only) **Transfer**: (CSU)

ELTEC 226—MOTORS, CONTROLS AND CONTROLLERS 3 UNITS

36 Lecture Hours, 54 Lab Hours,

Prerequisite: Satisfactory completion of ELTEC 208.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ELTEC 223 and/or satisfactorily complete ELTEC 230.

An introduction to electrical motors and control systems. Emphasis on basic control design and troubleshooting. Basic use and programming of modern control devices such as VFDs. [Course meets DAS Electrician Trainee and Journey Level Recertification CA State Requirements] Field trips might be required. Not repeatable. (A-F or P/NP) Lec/Lab. **Transfer**: (CSU)

ELTEC 229—COMMERCIAL AND INDUSTRIAL WIRING 3.5 UNITS

36 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of ELTEC 208.

Essential insights and practices in Commercial and Industrial Wiring that develop skills for the electrical trade. Topics include the application of basic concepts in the design of electrical systems in compliance of the NEC as it is applied in California, implementation of accepted trade practices used in installations, and common troubleshooting techniques. [Course meets DAS Electrician Trainee and Journey Level Re-certification CA State Requirements] Field trips might be required. Not repeatable. (A-F Only) Lecture/Lab. **Transfer**: (CSU)

ELTEC 230—BLUEPRINT READING FOR ELECTRICIANS 2 UNITS

36 Lecture Hours

Formerly listed as: ELTEC 230: Blueprint Reading for Electricians

Analysis of electrical blueprints and other types of related schematics such as projections, themes of construction blueprints, machinery, schematics of control and instrumentation. Intended for electricians, electrical apprentices, and technical students. Reading and interpretation of electrical blueprints, and how to sketch simple electrical installation or control diagrams. Field trips are not required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

ELTEC 232—INTRODUCTION TO PROGRAMMABLE LOGIC CONTROLLERS 2 UNITS

18 Lecture Hours, 54 Lab Hours

Also offered as CMPET 232

Introduction to the basic concepts of Programmable Logic Controllers. Installation, programming, maintaining, and trouble shooting of micro-sized programmable logic controller systems. **This course is approved by the state of California for the DAS Electrician Trainee Program. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

ELTEC 234— INTRODUCTION TO PACS: PROGRAMMABLE AUTOMATION CONTROLLERS **3 UNITS**

Formerly listed as: ELTEC 234: Advanced Topics in Programmable Logic

36.00 Lecture Hours, 54.00 Lab Hours

Prerequisite: Satisfactory completion of ELTEC 232.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ELTEC 212.

Introduction to the basic concepts of Programmable Automation Controller (PAC). Installation, programming, maintaining and troubleshooting PAC systems. Field trips are not required. Not repeatable. (A-F or P/NP) Lec/Lab. **Transfer**: (CSU)

ELTEC 236—HMI & INDUSTRIAL COMMUNICATIONS **2 UNITS**

18 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of ELTEC 232.

Provides students with the skills in designing and using Human Machine Interface (HMI) systems using industrial communications. The course provides basic concepts, features and operations of HMI systems using typical Programmable Logic Controllers (PLCs), Programmable Automation Controllers (PAC's) and other devices. Field trips are not required. Not repeatable. (A-F Only) Lec/Lab. **Transfer**: (CSU)

ELTEC 265—TROUBLESHOOTING TECHNIQUES **1 UNIT**

18 Lecture Hours

Troubleshooting methods and techniques are presented and practiced. Covers issues and problems related to industrial equipment, processes, facilities, and everyday life. Single and Multiple-solution problem-solving techniques, brainstorming, and "out of the box" thinking methods presented and practiced. This course is approved by the State of California for the DAS Electricians Training program. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU)

ELTEC 300—SURVEY OF APPLIED TECHNOLOGIES **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Survey of applied technologies in the Advance Manufacturing, Transportation, or Construction Industry. Topics include electricity, small engines/industrial mechanics, common computer software and robotics. Field trips might be required. Not repeatable. (A-F Only) Lecture/Lab.

ELTEC 320—ELECTRICAL SAFETY **1 UNIT**

18 Lecture Hours

Introduction to electrical safety. Types of electrical risks and injuries that an electrical incident can produce. Development of skills necessary to recognize and evaluate electrical hazards, and how to control these hazards by following appropriate procedures and using personal protective equipment. This course covers basic OSHA regulations related to electrical safety (1910 Subpart S, and 1926 Subpart K) and NFPA 70E "Standard for Electrical Safety in the Workplace". Field trips are not required. (A-F Only) Lecture. Not repeatable.

ELTEC 321—PHOTOVOLTAIC SYSTEMS **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of ELTEC 208.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AGM 225 or satisfactorily complete ELTEC 229.

Study of OFF-Grid, Interconnected (Grid-tied), and Hybrid photovoltaic systems, including the study of locations and positioning for PV arrays, electrical and mechanical design and integration (including hands-on experiences), Safety rules and regulations related to this industry, financial topics (systems estimates and rebates), and an overview of NABCEP certification requirements. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable.

Emergency Medical Service Courses (EMS)

EMS 350—FIRST RESPONDER WITH HEALTHCARE PROVIDER CPR **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AP 50 and/or satisfactorily complete MDAST 321.

An entry-level course designed for firefighters and other emergency workers who will respond to medical emergencies ahead of ambulance transportation. Focuses on stabilization of ill or injured patients prior to arrival of more advanced life support. This course meets the basic requirements for most volunteer fire agencies as well as some paid fire departments. Materials fee required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CC EMS 157)

EMS 380—BASIC ECG INTERP/INTRO TO CARDIAC CARE **3 UNITS**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to possess an understanding of basic medical terminology.

Designed for students who have had little or no formal training in arrhythmia diagnosis. Emphasis on diagnosing the major and life threatening arrhythmias incorporating patient assessment and treatment. Field trips might be required. (AF or P/NP) Lab. Not repeatable.

EMS 389—EMERGENCY MEDICAL TECHNICIAN 1- CLINICAL **0.5 UNITS**

27 Lab Hours

Formerly listed as: EMS 389: Emergency Medical Technician 1- Lab

Prerequisite: Satisfactory completion of EMS 350.

Corequisite: Concurrent enrollment in EMS 390.

This course addresses the supervisor clinical portion of a state approved Basic EMT Program. This course is a co-requisite to the EMS 390 which places the student in a practical environment. Students will observe and perform patient diagnostics and treatment under the direct supervision of a preceptor. Field trips are not required. (A-F Only) Lab. Not repeatable.

EMS 390—EMERGENCY MEDICAL TECHNICIAN 1 **6 UNITS**

90 Lecture Hours, 54 Lab Hours

Corequisite: Concurrent enrollment in EMS 389.

Limitations on Enrollment: Enrollment limited to students who can demonstrate completion of basic First Aid and CPR (Healthcare Provider level) from the American Heart Association or National Safety Council, or Professional Rescuer level from the American Red Cross.

Students must also provide certification of completion of a 40-hour First Responder

course which meets State of California Fire Marshal training level.

Prepares the student for certification as an Emergency Medical Technician I. Students are trained to provide basic life support emergency care as mandated by the California Emergency Medical Services authority. Materials fee required. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. (CC EMS 4)

EMS 391—EMERGENCY MEDICAL TECHNICIAN 1 REFRESHER COURSE 1.5 UNITS

27 Lecture Hours

Prerequisite: Satisfactory completion of EMT 390 or equivalent.

Provides new and updated information for the Emergency Medical Technician, as well as reinforcement of basic knowledge and skills. Meets requirements for recertification as an EMT in California. Lecture. (A-F Only) Not repeatable.

Engineering Courses (ENGR)

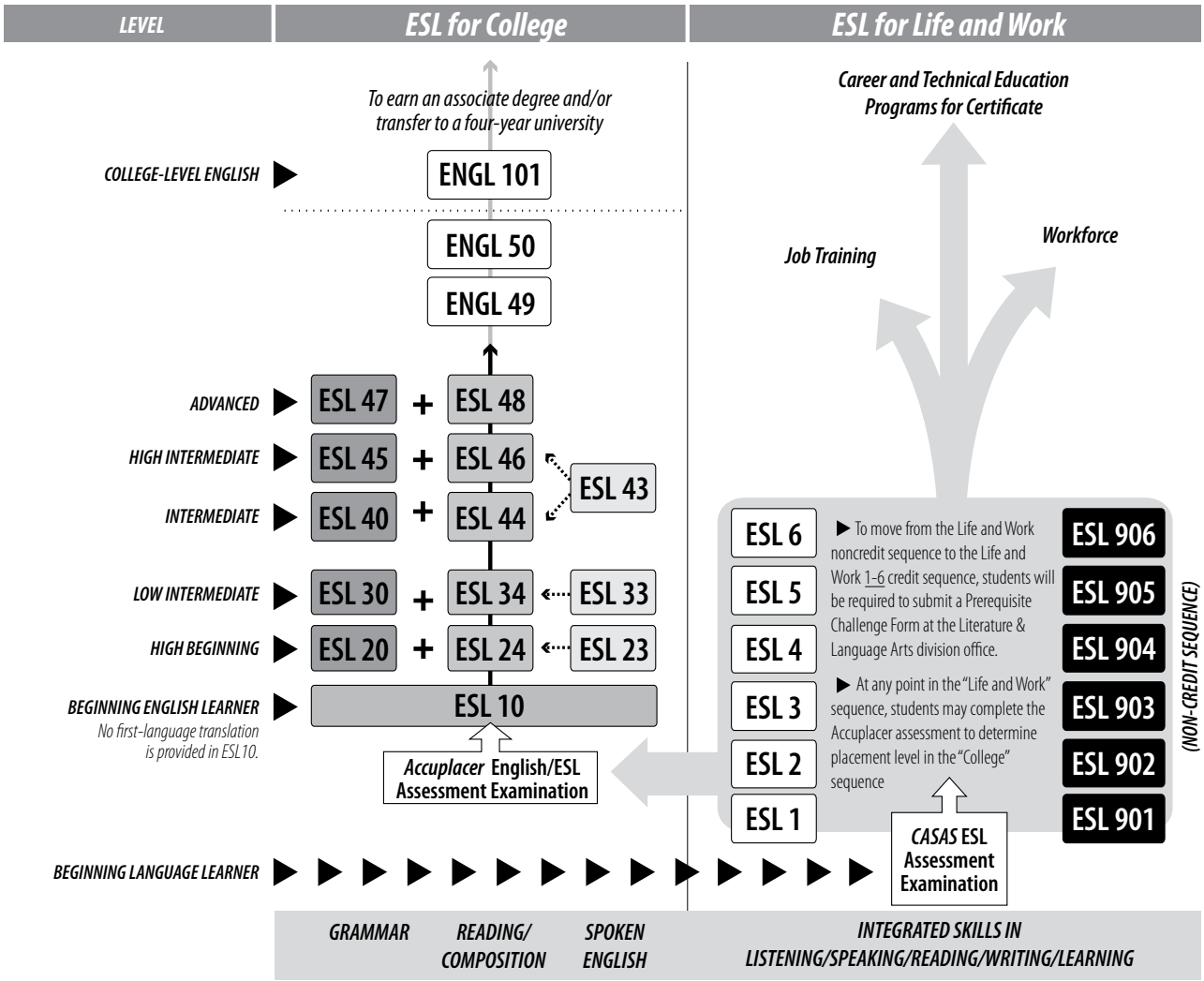
ENGR 127—ENGINEERING GRAPHICS 4 UNITS

36 Lecture Hours, 108 Lab Hours

Prerequisite: Satisfactory completion of MATH 90 or eligibility for MATH 101 or higher as determined by MJC Assessment process.

Development of graphics skills for engineering drawings with the use of computer aided drafting (CAD) software. Topics include orthographic and pictorial projections, section and auxiliary views, dimensioning, tolerancing, threaded fasteners, and working drawings. Introduction to 3D modeling and engineering design. Design project required. (A-F or P/NP) Lecture/Laboratory. Not repeatable. **Transfer**: (CSU, UC)

ESL PATHWAYS



English as a Second Language Courses (ESL)

The Literature and Language Arts division officers two programs in ESL: a non-credit, adult basic education program of courses on six levels, and a six-level credit program intended for students who plan to pursue other academic and vocational study at the college. Most ESL courses are not degree-applicable; no major is offered.

ESL: NON-DEGREE COURSES FOR CREDIT

ESL 1—ESL: BEGINNING ENGLISH FOR LIFE AND WORK 5 UNITS

90 Lecture Hours

Beginning English for non-English speakers. Emphasis on beginning spoken English and basic literacy. Field trips might be required.(A-F Only) Lecture. Not repeatable.

ESL 2—ESL: ELEMENTARY ENGLISH FOR LIFE AND WORK 5 UNITS

90 Lecture Hours

Prerequisite: Satisfactory completion of ESL 1 or qualification by the MJC assessment process.

Elementary English with emphasis on spoken English for practical needs and preparation for advancement into academic ESL classes. Field trips might be required.(A-F Only) Lecture. Not repeatable.

ESL 3— ESL: HIGHER ELEMENTARY ENGLISH FOR LIFE AND WORK 5 UNITS

90 Lecture Hours

Prerequisite: Satisfactory completion of ESL 2 or qualification by the MJC assessment process.

High elementary level English for speakers of other languages. Instruction and practice in listening, speaking, and reading and writing. Preparation for advancement into credit ESL classes. Field trips might be required.(A-F Only) Lecture. Not repeatable.

ESL 4— ESL: INTERMEDIATE ENGLISH FOR LIFE AND WORK 5 UNITS

90 Lecture Hours

Prerequisite: Satisfactory completion of ESL 3 or qualification by the MJC assessment process.

Intermediate level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with a greater emphasis on academic preparation. Field trips might be required.(A-F Only) Lecture.

ESL 5—ESL: HIGH INTERMEDIATE ENGLISH FOR LIFE AND WORK 5 UNITS

90 Lecture Hours

Prerequisite: Satisfactory completion of ESL 4 or qualification by the MJC assessment process.

High intermediate level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with a greater emphasis on academic and workforce preparation. Field trips might be required.(A-F Only) Lecture. Not repeatable.

ESL 6—ESL: LOW ADVANCED ENGLISH FOR LIFE AND WORK 5 UNITS

90 Lecture Hours

Prerequisite: Satisfactory completion of ESL 5 or qualification by the MJC assessment process.

Low advanced level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with great emphasis on transition to academic programs, the workplace, and job-training courses. Field trips might be required.(A-F Only) Lecture. Not repeatable.

ESL 10—ENGLISH LANGUAGE 1 10 UNITS

180 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ESL 901 and/or ESL 902, especially if they lack elementary listening comprehension and speaking skills. To be successful in ESL 10, students need to be able to understand, follow, and respond to basic instruction(s) in English.

Elementary course in speaking, listening, reading, and writing for persons learning English as another language. Field trips might be required. Lecture. (A-F or P/NP) Not repeatable.

ESL 20—ENGLISH LANGUAGE 2 5 UNITS

90 Lecture Hours

Prerequisite: Satisfactory completion of ESL 10 or qualification by the MJC assessment process.

Continuation of ESL 10. Elementary English grammar component for persons learning English as another language. Emphasis on vocabulary and sentence structure for practical communication in school, community, and work. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable.

ESL 23—ENGLISH SPEAKING AND LISTENING 1 5 UNITS

90 Lecture Hours

Formerly listed as ESL 23 - Spoken English 1

Recommended for Success: Before enrolling in this course, students are strongly advised to Use English grammar and tenses at the elementary level. Read simplified texts demonstrating knowledge of elementary vocabulary and follow basic oral and written instructions without the need of a translator.

An introduction to basic pronunciation of vowels and consonants of the English language. Attention paid to rhythm, intonation, and syllable stress, and the aural and vocabulary skills required to function in basic English. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable.

ESL 24—ESL COMPOSITION AND READING 1 5 UNITS

90 Lecture Hours

Prerequisite: Satisfactory completion of ESL 10 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to be concurrently enrolled in ESL 20.

Practice in reading and writing for students at the beginning (second-semester) level. Significant homework may be assigned to a lab. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable.

ESL 30—ENGLISH LANGUAGE 3 **5 UNITS**

90 Lecture Hours

Prerequisite: Placement in ESL 30 through MJC assessment process, or satisfactory completion of ESL 20 or equivalent course.

Continuation of ESL 20. Lower intermediate component for persons learning English as another language. Emphasis on review and expansion of lower intermediate grammatical structures in reading, writing, listening, and speaking. Lecture. Field trips might be required.(A-F or P/NP) Not repeatable.

ESL 33—ENGLISH SPEAKING AND LISTENING 2 **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of ESL 23 or qualification by the MJC assessment process.

Continued development in pronunciation, rhythm, intonation, stress, reductions, linking, and focus shift of English. Beginning aural comprehension of simplified lectures, participation in group discussion, and vocabulary necessary for delivery of short presentations. (A-F or P/NP) Lecture. Not repeatable.

ESL 34—ESL COMPOSITION AND READING 2 **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of ESL 20 or qualification by the MJC assessment process and ESL 24 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to be concurrently enrolled in ESL 30.

Practice in reading and writing for students at the low-intermediate (third semester) level of ESL courses. Continuation of ESL 24. Significant homework may be assigned to a lab. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable.

ESL 39—VOCABULARY POWER 1 **2 UNITS**

36 Lecture Hours

Prerequisite: Satisfactory completion of ESL 20 or qualification by the MJC assessment process and ESL 24 or qualification by the MJC assessment process.

Focused study of vocabulary for ESL students enrolled in ESL 30, ESL 34, ESL 40, and/ or ESL 44. Practice and expansion of vocabulary at the word, sentence, and context level. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable.

ESL 40—ENGLISH LANGUAGE 4 **5 UNITS**

90 Lecture Hours

Prerequisite: Placement in ESL 40 through assessment process or satisfactory completion of ESL 30 or equivalent course.

Intermediate course in English for persons learning English as another language. Introduction to more difficult structures in English sentences. Review of elementary English. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable.

ESL 43—ENGLISH SPEAKING AND LISTENING **5 UNITS**

90 Lecture Hours

Formerly listed as: ESL 43: Spoken English 2

Prerequisite: Satisfactory completion of ESL 33 or qualification by the MJC assessment process.

Continued development in natural pronunciation of American English with emphasis on advanced rhythm, intonation, and stress. Students become adept at oral presentations and gain proficiency in leading discussions. Aural comprehension emphasizes paraphrasing, note taking, and summaries of college lectures. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable.

ESL 44—ESL COMPOSITION AND READING 3 **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of ESL 30 and ESL 34 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to be concurrently enrolled in ESL 40.

Practice in writing paragraphs and multi-paragraph compositions and reading for students at the intermediate level of ESL with a comprehensive foundation in English grammar and the ability to write well-formed paragraphs in English. Continuation of ESL 34. Significant homework may be assigned to a lab. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable.

ESL 45—ENGLISH LANGUAGE 5 **5 UNITS**

90 Lecture Hours

Prerequisite: Placement in ESL 45 through assessment process or satisfactory completion of ESL 40 or equivalent course.

Continuation of ESL 40. Higher intermediate components for persons learning English as another language. Review and expansion of higher intermediate grammatical structures in reading, writing, listening, and speaking. Lecture. (A-F or P/NP) Not repeatable.

ESL 46—ESL COMPOSITION AND READING 4 **5 UNITS**

90 Lecture Hours

Prerequisite: Placement in ESL 45 through assessment process or satisfactory completion of ESL 40 and ESL 44 or equivalent course.

Practice in writing academic essays and analysis of authentic reading for students at the higher intermediate level of ESL. Significant homework may be assigned to a lab. Not repeatable. Field trips might be required.(A-F or P/NP) Lecture.

ESL 47—ENGLISH LANGUAGE 6 **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of ESL 45 or qualification by the MJC assessment process.

Continuation of ESL 45. Advanced English grammar component for persons learning English as another language. Emphasis on review and expansion of advanced grammatical structures in reading, writing, listening, and speaking for success in college-level courses. Field trips are not required. Not repeatable. (A-F or P/NP)

ESL 48—ESL COMPOSITION AND READING 5 **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of ESL 45 and ESL 46 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to be concurrently enrolled in ESL 47.

Practice in composition and reading for advanced ESL students who plan to continue in college. Preparation for reading and writing in various academic and vocational disciplines. Emphasis on writing in response to reading. Significant homework may be assigned to a lab. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable.

ESL: NON-CREDIT, NON-DEGREE COURSES FOR CREDIT

ESL 901—ESL: BEGINNING ENGLISH FOR LIFE AND WORK

90 Lecture Hours

Formerly listed as ESL 901 - ESL: Beginning

Beginning English for non-English speakers. Emphasis on beginning spoken English and basic literacy. Unlimited repeats. Field trips might be required.(Non-Graded course) Lecture.

ESL 902—ESL: ELEMENTARY ENGLISH FOR LIFE AND WORK

90 Lecture Hours

Formerly listed as ESL 902 - ESL: Lower Elementary

Prerequisite: Satisfactory completion of ESL 901 or qualification by the MJC assessment process.

Elementary English with emphasis on spoken English for practical needs and preparation for transition into academic ESL classes. Unlimited repeats. Field trips might be required. (Non-Graded course) Lecture.

ESL 903—ESL: HIGHER ELEMENTARY ENGLISH FOR LIFE AND WORK

90 Lecture Hours

Formerly listed as ESL 903 - ESL: Higher Elementary

Prerequisite: Satisfactory completion of ESL 902 or qualification by the MJC assessment process.

High elementary level English for speakers of other languages. Instruction and practice in listening, speaking, and reading and writing. Preparation for transition into academic ESL classes. Unlimited repeats. Field trips might be required.(Non-Graded course) Lecture.

ESL 904—ESL: INTERMEDIATE ENGLISH FOR LIFE AND WORK

90 Lecture Hours

Formerly listed as ESL 904 - ESL: Intermediate

Prerequisite: Satisfactory completion of ESL 903 or qualification by the MJC assessment process.

Intermediate level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with a greater emphasis on academic preparation. Unlimited repeats. Field trips might be required.(Non-Graded course) Lecture.

ESL 905—ESL: HIGH INTERMEDIATE ENGLISH FOR LIFE AND WORK

90 Lecture Hours

Formerly listed as ESL 920 - English at Work 1

Prerequisite: Satisfactory completion of ESL 904 or qualification by the MJC assessment process.

High intermediate level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with a greater emphasis on academic and workforce preparation. Unlimited repeats. Field trips might be required.(Non-Graded course) Lecture.

ESL 906—ESL: LOW ADVANCED ENGLISH FOR LIFE AND WORK

90 Lecture Hours

Formerly listed as ESL 921 - English at Work 2

Prerequisite: Satisfactory completion of ESL 905 or qualification by the MJC assessment process.

Low advanced level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with great emphasis on transition to academic programs, the workplace, and job-training courses. Unlimited repeats. Field trips might be required.(Non-Graded course) Lecture.

English Courses (ENGL)

PLACEMENT REQUIREMENTS FOR ENGLISH COURSES

For students who have not already completed an English composition course at Modesto Junior College or at any other college, placement in ENGL 49, 50, and 101 requires the English Placement Examination.

- ENGL 50: Placement by examination or completion of ENGL 49 with a grade of C or better.
- ENGL 101: Placement by examination or completion of ENGL 50 with a grade of C or better.
- ENGL 103: Completion of ENGL 101 with a grade of C or better.

ENGL 45—ACCELERATED READING, WRITING, AND REASONING 6 UNITS

108 Lecture Hours

Prerequisite: Satisfactory completion of READ 40 or qualification by the MJC assessment process.

This is an accelerated composition class that takes the place of the English 49 and English 50 two course sequence. It focuses on the college level reading, writing, and critical thinking skills students will need for English 101 with more structure, time, tutoring, and support. Students will learn to critically read and engage in text-based writing with academic texts. Students who achieve a passing score on their writing portfolio will place directly into English 101. Field trips are not required. Not repeatable. Lecture. (A-F or P/NP)

ENGL 48—GRAMMAR REVIEW 1 UNIT

18 Lecture Hours

Students will review the fundamentals of standard English grammar. They will practice recognizing and correcting errors in grammar and usage. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable.

ENGL 49—BASIC ENGLISH SKILLS 5 UNITS

90 Lecture Hours

Corequisite: Concurrent enrollment in or satisfactory completion of READ 40 or qualification by the MJC assessment process.

Fundamentals of writing. Emphasis on improving writing fluency, developing paragraphs and short essays, and learning to edit for spelling, punctuation and word usage. 6,000 word writing requirement including both in-class and out-of-class essays. Field trips might be required.(P/NP Only) Lecture. Not repeatable. **Transfer**: (CC ENGL 650)

ENGL 50—BASIC COMPOSITION AND READING 5 UNITS

90 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 49 or qualification by the MJC assessment process.

Basic English skills in writing, reading, and thinking: writing effective sentences, organizing ideas into paragraphs and essays, utilizing fundamentals of English syntax, reading academic texts, and building vocabulary. Emphasis on basic critical thinking and study skills as well. 6,000 word writing requirement including some in-class writing. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CC ENGL 151)

ENGL 101—COMPOSITION AND READING 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete READ 184.

Fundamental skills in reading and writing at the college level. Emphasis on exposition, argument, research, and information competency. 8,000 word writing requirement, at least 6,000 of which must be in essays that have a developed thesis. 2,000 - 3,000 words of the 8,000 must be research-based writing with MLA formatting and documentation. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ENGL 1A) **General Education**: (MJC-GE: D1) (CSU-GE: A2) (IGETC: 1A) (C-ID: ENGL 100)

ENGL 102—ADVANCED COMPOSITION & INTRODUCTION TO LITERATURE 3 UNITS

54 Lecture Hours

Formerly listed as: ENGL 102: Advanced Comp and Intro to Lit

Prerequisite: Satisfactory completion of ENGL 101.

Advanced composition with an introduction to literary analysis of fiction, poetry, and drama. Intended primarily for university Transfer students, but open to any qualified student. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ENGL 1B) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B) (C-ID: ENGL 120)

ENGL 103—ADVANCED COMPOSITION & CRITICAL THINKING 3 UNITS

54 Lecture Hours

Formerly listed as: ENGL 103: Adv Comp & Critical Thinking

Prerequisite: Satisfactory completion of ENGL 101.

Advanced composition course that focuses on the techniques and principles of argumentation and offers instruction in analytical evaluation of texts, research strategies, and proper documentation. Examines style, diction, inference, evidence, reasoning, and rhetorical strategies of written argument. 8,000 word writing requirement, at least 6,000 of which must be in essays that have a developed thesis. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ENGL 1C) **General Education**: (MJC-GE: D2) (CSU-GE: A3) (IGETC: 1B) (C-ID: ENGL 105)

ENGL 105—CREATIVE WRITING: POETRY 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 101.

Instruction and practice in writing poetry. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2)

ENGL 106—CREATIVE WRITING: SHORT FICTION 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 101.

Instruction and practice in writing shorter forms of fiction. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2)

ENGL 111—CREATIVE WRITING: CREATIVE NONFICTION 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 101.

Instruction and practice in writing Creative Nonfiction, also known as Literary Nonfiction, with an emphasis on the personal essay. Field trips might be required. (AF or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C)

ENGL 112—INTRODUCTION TO THE NOVEL AND SHORT STORY 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Formerly listed as: ENGL - 112: Introduction to Novel and Short Story

This course is an introduction to the novel and short story with emphasis on intelligent reading, analysis, and discussion of a range of fiction representing various types and traditions. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 114—INTRODUCTION TO POETRY 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

This course covers analysis and discussion of poetry. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 116—INTRODUCTION TO DRAMA 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Analysis and discussion of selected plays from classical Greek period to present. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 131—INTRODUCTION TO WORLD LITERATURE 1 3 UNITS

54 Lecture Hours

Formerly listed as: ENGL 131: Introduction to World Literature to 1500

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and satisfactorily complete ENGL 102.

A comparative study of selected works, in translation and in English, of literature, including works from Asia, the Middle East, Europe, and other areas, from antiquity to the mid-seventeenth century. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B) (C-ID: ENGL 140)

ENGL 132—INTRODUCTION TO WORLD LITERATURE 2 3 UNITS

54 Lecture Hours

Formerly listed as: ENGL 132: Introduction to World Literature (1500 to Present)

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and satisfactorily complete ENGL 102.

A comparative study of selected works, in translation and in English, of literature including works from Asia, the Middle East, Europe, and Latin America from the mid seventeenth century to present. Note: students do not have to have taken ENGL 131 to enroll in ENGL 132. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ENGL 81) (C-ID: ENGL 145) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 135—SURVEY OF AMERICAN LITERATURE TO 1850 3 UNITS

54 Lecture Hours

Formerly listed as: ENGL 135: American Literature to 1850

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and satisfactorily complete ENGL 102.

Survey of American literature from its beginning to mid-nineteenth century. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ENGL 17) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B) (C-ID: ENGL 130)

ENGL 136—SURVEY OF AMERICAN LITERATURE: 1850 TO THE PRESENT 3 UNITS

54 Lecture Hours

Formerly listed as: ENGL 136: American Literature: 1850 to the Present

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and satisfactorily complete ENGL 102.

Survey of American literature from mid-nineteenth century to the present. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ENGL 18) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B) (C-ID: ENGL 135)

ENGL 137— SURVEY OF ENGLISH LITERATURE TO THE LATE 18TH CENTURY 3 UNITS

54 Lecture Hours

Formerly listed as: ENGL 137: Survey of English Lit to 18th Century, ENGL 137: Survey of English Literature to the 18th Century

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and satisfactorily complete ENGL 102.

Survey of English literary history from the Anglo-Saxons to the late Eighteenth Century with detailed study of the writings of Chaucer, Marlowe, Spenser, Shakespeare, Milton, and others. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ENGL 46) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B) (C-ID: ENGL 160)

ENGL 138— SURVEY OF ENGLISH LITERATURE: LATE EIGHTEENTH CENTURY TO PRESENT 3 UNITS

54 Lecture Hours

Formerly listed as: ENGL 138: Survey of English Lit: 18th Century to Present,

ENGL 138: Survey of English Literature: 1700 - Present

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and satisfactorily complete ENGL 102.

This course examines major works of British Literature from the late eighteenth century to the post-colonial and contemporary time. The study includes multiple genres with texts of literary, historical, and cultural importance and impact. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ENGL 47) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B) (C-ID: ENGL 165)

ENGL 151—FOLKLORE 3 UNITS

54 Lecture Hours

Formerly listed as: ENGL 151: Introduction to Folklore

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Examine interrelationships of people throughout the world through discussion and

analysis of our folk heritage. Folk-themes and symbolism in literature also will be discussed. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 156— THE BIBLE AS LITERATURE: THE HEBREW CANON AND INTERTESTAMENTAL WRITINGS 3 UNITS

54 Lecture Hours

Formerly listed as ENGL 156 - The Bible As Literature-The Hebrew Canon

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to have eligibility for ENGL 101.

This course consists of literary criticism and an appreciation of historical background and textual transmission of selected books of the Hebrew Bible (Old Testament) and Intertestamental Writings (also known as the Apocrypha) in translation. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 157—THE BIBLE AS LITERATURE: THE NEW TESTAMENT 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Formerly listed as: ENGL 157: Bible as Lit-The New Testament.

Analysis of the literature of the earliest Christian movements as it is found in the New Testament. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 161—FILM APPRECIATION 3 UNITS

54 Lecture Hours

An introductory course in film appreciation, emphasizing the development of sensitivity and critical judgment in audience response to film. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)(UC)(CC ENGL 11) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

ENGL 162—HISTORY OF CINEMA 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Examines the international development of cinema from 1895 to the present. Covers a wide range of both American and foreign films and offers a broad survey of major movements, styles, and genres in the history of motion pictures. Focuses specifically on the social, historical, technical, and technological factors that have shaped the film industry and the films produced by it. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 163—INTRODUCTION TO SHAKESPEARE 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete English 101 and 102.

A reading of six to nine representative comedies, histories, and tragedies designed to introduce the student to Shakespeare's art. Field trips might be required. (A-F or P/NP) (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC ENGL 50) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 168—ADOLESCENT LITERATURE 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Introduction to literature for adolescents (ages 10-16). Includes various forms, themes, and issues of adolescent literature drawn from a variety of ethnic and cultural sources, ways to promote interest, and criteria for choosing materials. Field trips might be required. (A-F or P/ NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 169—CHILDREN'S LITERATURE 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Introduction to literature for children. Introduces representative works from a variety of ethnic and cultural sources, including storytelling. Develops students' close reading and analytical writing skills. Develops appreciation for aesthetic qualities of children's literature. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B) (C-ID: ENGL 180)

ENGL 171—INTRODUCTION TO AFRICAN-AMERICAN LITERATURE 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

An introduction to the contributions of African-Americans in American literature from the slave era to the present. Emphasis on a chronological study of major works in the following genres: slave narratives, folk tales, poetry, short story, novel, and drama. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 172—INTRO TO CHICANO/A LITERATURE 3 UNITS

54 Lecture Hours

Formerly listed as ENGL 172 - Intro to Chicano Literature

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

This course is a survey of Chicano literature in English from its beginnings to its contemporary form. Emphasis on influences that have shaped the literature and critical skills needed to evaluate and appreciate Chicano poetry, theater, fiction, and essay. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 173—INTRO TO LATIN AMERICAN LITERATURE 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Introduction to Latin American literature from its Colonial Period to the present. Emphasis on chronological survey of major works of Latin American writers studied in English translation and selected from the following: indigenous legends, chronicles, epistles, poetry, novel, drama, and short story. Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 174—INTRODUCTION TO MODERN ASIAN LITERATURE 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

An introductory course on Asian literature from the 19th century to the present in its English translation. Emphasis on major works that have made an impact on western literary tradition and the social, cultural, and historical forces that have shaped these works. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2)(IGETC: 3B)

ENGL 175—INTRODUCTION TO WOMEN'S LITERATURE 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

An introduction to literature by and about women, including an historical overview, archetypes, stereotypes, cultural impediments to women's writing, methods of criticism, and recent literary achievements. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 176—INTRODUCTION TO MEXICAN LITERATURE 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process. Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Introduction to Mexican literature from its Colonial Period to the present. Emphasis on chronological survey of major works of Mexican writers studied in English translation and selected from the following: chronicles, epistles, poetry, novels, drama, and short stories. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 179— INTRODUCTION TO NATIVE AMERICAN LITERATURE, MYTHOLOGY, AND THE ORAL TRADITION 3 UNITS

54 Lecture Hours

Formerly listed as: ENGL 179: Intro to Native American Lit

Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Study of traditional and contemporary Native American literature, oral traditions, and myths from a variety of nations, including some local Native American peoples. Relationship of contemporary writing to earlier cultural heritage. Place of Native American literature in the American literary tradition and canon. Close reading of contemporary autobiography, novels, short fiction and non-fiction, and poetry. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

Environmental Horticulture Sciences Courses (EHS)

In this program the student will develop skills in plant recognition and use, nursery practices, and landscape design sufficient to enter the landscape or nursery business or to transfer to a university. Contact the division office in the Agriculture Building for advising assistance.

EHS 50—BEGINNING ORNAMENTAL GARDENING 2 UNITS

36 Lecture Hours

Formerly listed as OH 50

Preparation for the fundamentals of indoor and outdoor gardening, planting for patios and balconies, gardening in containers and simple landscaping. Designed for anyone interested in gardening, regardless of prior experience or size of garden. A series of 30 television programs supported by coordinating textual material and by additional printed materials that are optional. Field trips might be required. Lecture. Not repeatable.

EHS 51—ENVIRONMENTAL HORTICULTURE PREPARATION 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as OH 51

A preparatory course in environmental horticulture, emphasis on nursery operation including structures and layout, seeding, transplanting, plotting, balling, canning, fertilizing, pest control, plant diseases and abnormalities. Preparation and use of propagating and planting mediums. Use and maintenance of common tools and equipment. Saturday field laboratory may be required. Field trips required. Lecture/ Laboratory. Not repeatable.

EHS 56—PREPARATORY PARK AND LANDSCAPE MAINTENANCE 3 UNITS

36 Lecture Hours, 54 Lab Hours

Preparation for training in installation of plant materials and materials of parks and other planted areas and in skills required for students to qualify as technicians. Special interest directed to provide specific skills in such areas as forestry, highway maintenance, city, state and federal parks. (A-F or P/NP) Field trips required. Lecture/Laboratory. Not repeatable.

EHS 100—ENVIRONMENTAL GARDENING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as OH 100

Plants used in the landscape; basic landscape design principles and plant propagation techniques. Emphasis on the place of horticultural crops in the economy and the role of plants in the environment. Discussion will center on the physiology of plants and their use and care. Emphasis will be on the practical application of horticultural principles. Field trips required. Lecture/Laboratory. (A-F Only) Not repeatable. **Transfer**: (CSU, UC)

EHS 201—PLANT IDENTIFICATION & USAGE 1 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Satisfactory completion of EHS 210 and/or PLSC 200.

Identification, growth habits, culture and ornamental use of landscape and indoor plants adapted to climates of California. Plants emphasized will come from the current California Association of Nurserymen & Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) Certification Tests Plant Lists. Covers those plants best observed and studied in the spring of the year. Field trips required. Will require Saturday labs. Lecture/Laboratory. (A-F Only) Not repeatable. **Transfer**: (CSU, UC)

EHS 202 PLANT IDENTIFICATION & USAGE 2 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EHS 210 and/or satisfactorily complete PLSC 200.

Identification, growth habits, culture and ornamental use of landscape and indoor plants adapted to climates of California. Plants emphasized will come from the current California Association of Nurserymen & Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) Certification Tests Plant Lists. Covers those plants best observed and studied in the fall of the year. Will require Saturday labs. Field trips are required. Not repeatable. (A-F Only) **Transfer**: (CSU, UC) (C-ID: AG-EH 112L)

EHS 210—INTRO TO ENVIRONMENTAL HORTICULTURE SCIENCE 3 UNITS

36 Lecture Hours, 54 Lab Hours

A general course in environmental horticulture with emphasis on nursery operations, landscaping, turf management, and floral industries. Topics include basic botany, cultural practices, propagation, structures and layout, pest management, planting, container gardening and house plants, floral design, plant identification, turfgrass installation and care, and survey of career opportunities. Saturday labs required. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

EHS 215—LANDSCAPE DESIGN 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have successfully completed EHS 201 and EHS 202.

The study and implementation of the art and science of landscape design, including principles of design, the design process, drafting, graphics, and presentation methods. Project emphasis is placed upon residential and small commercial sites. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

EHS 220—TURFGRASS MANAGEMENT 3 UNITS

36 Lecture Hours, 54 Lab Hours

Maintenance and management of turfgrasses that include sports athletic fields, golf courses, parks, cemeteries, commercial, and residential lawns. Discussion will focus on identification, installation, cultural requirements and maintenance practices. Field trips are required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

EHS 235—PLANT PROPAGATION/PRODUCTION 3 UNITS

36 Lecture Hours, 54 Lab Hours

Also offered as: PLSC 235

Formerly listed as: EHS - 235: Plant Propagation/ Production Planting & Varieties

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EHS 210 or satisfactorily complete PLSC 200.

Plant propagation and production practices with emphasis on nursery operations including sexual and asexual reproduction, planting, transplanting, fertilizing, plant pest and disease control, structures and site layout. Preparation and use of propagating and planting mediums. Use and maintenance of common tools and equipment. Regulations pertaining to plant production. Students will need pruning shears, a grafting knife and a budding knife. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)) (C-ID AG - EH 116L)

EHS 276— LANDSCAPE MAINTENANCE 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactory completion of EHS 210.

Enhancing the function and aesthetic value of public and private landscapes by applying appropriate maintenance techniques. Topics include planting, pruning, watering, soil fertility, pest management, weed control, and landscape maintenance business practices. Field trips required. Lecture/Laboratory. (A-F Only) Not repeatable. **Transfer**: (CSU)

EHS 278—LANDSCAPE CONSTRUCTION AND INSTALLATION 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Satisfactory completion of EHS 210.

Fundamentals of landscape construction, including soil preparation, paving and construction materials, hand and power tool use, turf and plant installation, plan reading, estimating and bid preparation; also covers local codes and state requirements and exposes students to the C-27 Landscaping Contractor's License exam. Field trips are required. (A-F Only) Lec/Lab. **Transfer**: (CSU)

EHS 280 —PRINCIPLES OF FLORAL ART AND DESIGN 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as: EH 280: Beginning Floral Design

An in-depth study of the principles, and elements of design used in intercultural floral composition. Students have an opportunity to express themselves through the medium of floral materials. Materials fee required. Field trips might be required. Not repeatable. Lec/Lab. (A-F Only) Transfer: (CSU) **Local Requirement**: (Activities)

EHS 281— ADVANCED FLORAL DESIGN **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of EHS 280

Advanced floral design theory, techniques and skills in the floral industry, including wedding, sympathy, party, holiday, high style and advanced floral designs. Techniques include working with the customer, consultations, pricing and use of computers and other business machines. Construction and servicing of weddings, funerals, party and holiday floral displays. Field trips required. Lecture/Laboratory. Materials fee required. (A-F Only) Not repeatable. **Transfer**: (CSU)

EHS 291—EHS TEACHING STRATEGIES **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Application of environmental horticulture science teaching strategies. Construction of an action plan incorporating environmental horticulture science curriculum in an applied setting, such as a school garden, Exploration of science curriculum standards as they relate to teaching strategies applied in the classroom. Field trips required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

EHS 390—NURSERY INDUSTRY SKILLS **1 UNIT**

18 Lecture Hours

Formerly listed as OH 390

A repeatable short course in Ornamental Horticulture that covers all skill aspects of the wholesale and retail nursery business. Also included are excerpts from plant identification, turfs, and landscape design. Field trips might be required. Lecture. (A-F Only) Not repeatable.

Environmental Sciences Courses (ENSCI)

ENSCI 108—ENVIRONMENTAL CONSERVATION **3 UNITS**

54 Lecture Hours

Study of the world's environment to sustain the highest quality of life. Includes study of ecology, populations, environmental pollution, conservation of natural resources including: energy, water, soils, forests, rangelands, and wildlife. Field trips are not required. Not repeatable. (A-F or P/NP Lecture. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B2) (IGETC: 5B)

ENSCI 110—CALIFORNIA WATER **3 UNITS**

36 Lecture Hours, 54 Lab Hours

An interdisciplinary examination of California's water use and management with an historical emphasis on the politics and conflict arising from water scarcity. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D7) (IGETC: 4G)

Family Life Courses (FAMLF)

FAMLF 131—FAMILY RELATIONSHIPS **3 UNITS**

54 Lecture Hours

This is an introductory course to marriage and family, including psychological, physiological, and social aspects of close personal relationships. The topics include dating, courtship, marriage, family life, dual career marriages, single parenting, and other contemporary issues Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B, E) (CSU-GE: D7, E) (IGETC: 4G)

FAMLF 390—THE PROCESS OF PARENTING **1 UNIT**

18 Lecture Hours

Discussion of child growth and development related to parenting. Background for understanding parent-child relationships. Emphasis on cooperation through effective and mutually respectful communication techniques. Lecture. (A-F or P/NP) Not repeatable.

FAMILY LIFE NON-CREDIT COURSES: (FAMLF)

FAMLF 800—PARENT EDUCATION

9 Lecture Hours

Exploration of current issues in parenting. Influences of the family and school on the growth and development of the child. Emphasis on positive and nurturing guidance techniques. Repeatable. Field trips might be required. (P/NP Only) Lecture.

Fire Sciences Courses (FSCI)

The Fire Science curriculum prepares the student for a career in fire service. Students will learn about the organization and operations of fire service, proper use of fire equipment, tactics and strategies of firefighting, specialized job skills, and management techniques. Fire Science courses dropped or inactivated Fall 1987 to Fall 1988 are valid for students completing those courses prior to deletion from the catalog. For more information, contact the Regional Fire Training Center at 548-5706.

FSCI 262—FIRE ACADEMY PHYSICAL TRAINING **1 UNIT**

54 Lab Hours

Corequisite: Concurrent enrollment in FSCI 362 or FSCI 363.

This course is designed to provide physical fitness preparation and assessment of students registered in the MJC Regional Fire Training Fire Academy. Field trips are not required. Not repeatable. (P/NP Only) Lab. **Transfer**: (CSU) **Local Requirement**: (Activities)

FSCI 301—FIRE PROTECTION ORGANIZATION **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have ENGL 50 eligibility.

Introduction to the fire service and fire protection; career opportunities in fire protection and related fields; history of fire protection; fire loss analysis; public and private fire

protection services; specific fire protection functions. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CC FIRE 1)

FSCI 302—FIRE PREVENTION TECHNOLOGY 3 UNITS

54 Lecture Hours

A basic overview of the role of fire prevention in modern fire service. Identifies the relationship of fire prevention, fire safety education, fire detection, and suppression systems. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CC FIRE 2)

FSCI 303—FIRE PROTECTION EQUIPMENT & SYSTEMS 3 UNITS

54 Lecture Hours

Formerly listed as: FSCI 303: Fire Protection Equip &systems

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.

Portable fire extinguishing equipment; sprinkler systems; protection systems for special hazards; fire alarm and detection systems. Field trips are required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CC FIRE 3)

FSCI 304—BUILDING CONSTRUCTION FOR FIRE PROTECTION 3 UNITS

54. 00 Lecture Hours

Formerly listed as: FSCI 304: Bldg Construction for Fire Protection

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.

Fundamentals of building construction as it relates to fire protection. Introduction to building materials and processes that are involved in the construction of structures. Provides students with the knowledge required to operate safely and effectively within residential or commercial buildings. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CC FIRE 4)

FSCI 305—FIRE BEHAVIOR AND COMBUSTION 3 UNITS

54 Lecture Hours

Theory and fundamentals of how and why fires start, spread, and are controlled; an in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques. Lecture. (A-F Only) Not repeatable. **Transfer**: (CC FIRE 5)

FSCI 306—PRINCIPLES OF FIRE AND EMERGENCY SERVICES SAFETY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Introduction to the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior changes throughout the emergency services. Field trips might be required.(A-F Only) Lecture. Not repeatable.

FSCI 309 FIRE MANAGEMENT 2E 2.5 UNITS

45 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Fire Management 1A.

Ethical leadership is an essential core value for all leaders in the fire service. This course provides chief officers or chief officer candidates with knowledge to correlate personal core values and characteristics to ethical decisions and behaviors. Course examines exploration of ethical and principle-centered leadership. Course instructor will require students to provide a State Fire Training Fire Management 1A certificate. Materials Fee Required. Field trips might be required.(A-F Only) Lecture. Not repeatable.

FSCI 311—RESCUE SYSTEMS 1 2 UNITS

36 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have received California State Fire Training's Firefighter One Certification or have satisfactorily completed FSCI 363.

Topics include: Team organization, rescue, and environmental considerations, use of ropes, knots rigging and pulley systems, descending, rappelling, and belaying tools and techniques, subsurface rescue techniques, use of cribbing, wedges, cutting/prying and hydraulic tools, use of fire service ladders in specialized rescue situations, and day and night simulated rescue exercises. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable.

FSCI 312— FIRE INVESTIGATION 2A 2 UNITS

36 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who provide verification of completion of Fire Investigation 1B.

Provides information on conducting an explosive investigation and surveillance operation, preparing a search warrant, testifying as an expert witness, assembling a curriculum vitae, and properly documenting a criminally caused fire. Materials Fee Required. Field trips might be required.(A-F Only) Lecture. Not repeatable.

FSCI 322—FIRE SERVICE CAREER DEVELOPMENT/PROMOTIONS 3 UNITS

45 Lecture Hours, 27 Lab Hours

Prerequisite: Satisfactory completion of FSCI 301.

Introduction to Fire Service Career Development. This course of instruction is designed to assist fire science students to prepare for entry level and interdepartmental Fire Service examinations. To be considered as an eligible candidate, students must have a working knowledge of fire service testing standards and terminology. Students will collect information for the application processes, resume writing, entry level written tests, mechanical aptitude and oral interviews. Students are also instructed on aspects of pre-employment medical and psychological tests and background checks. Field trips might be required.(A-F Only) Lecture/Lab. Not repeatable.

FSCI 323—FIRE HYDRAULICS 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.

Review of applied mathematics; hydraulics laws as applied to the fire service; application of formulas and mental calculations to hydraulics and water supply problems. Field trips might be required. (A-F Only) Lecture. Not repeatable.

FSCI 327—FIRE APPARATUS AND EQUIPMENT 3 UNITS

54 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who can provide State Fire Training Certificate for Firefighter 1.

Fire apparatus design, specifications, and performance capabilities; effective utilization of apparatus in fire service emergencies. Field trips might be required. (A-F Only) Lecture. Not repeatable.

FSCI 328—INVESTIGATION OF FIRES 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.

Determining cause of fires (accidental, suspicious and incendiary); types of fires; related laws; introduction to arson and incendiarism; recognizing and preserving evidence; interviewing witnesses and suspects; arrest and detention procedures; court procedures and giving court testimony. Field trips might be required. (A-F Only)Lecture. Not repeatable.

FSCI 332—FIRE SCIENCE TACTICS & STRATEGY 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of FSCI 301.

Principles of fire control through the utilization of manpower, equipment and extinguishing agents on the fireground. Field trips might be required. (A-F Only) Lecture. Not repeatable.

FSCI 336—RESCUE PRACTICES 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.

Rescue problems and techniques; emergency rescue equipment; toxic gases; chemicals and diseases; radiation hazards; care of victims, including respiration and resuscitation, extrication, and other emergency conditions. Field trips might be required. (A-F Only) Lecture. Not repeatable.

FSCI 337—WILDLAND FIRE CONTROL 3 UNITS

54 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who can provide State Fire Training Certificate for Firefighter 1.

Introduction to factors affecting wildland fire prevention, fire behavior, and control techniques. Field trips might be required. Lecture. Not repeatable. **Transfer**: (CC FIRE 7) (A-F Only)

FSCI 341—FIRE COMMAND 1C: I-ZONE FIREFIGHTING 2 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 350 and satisfactorily complete FSCI 351.

Responsibilities of the Company Officer at a wildland/urban interface incident. Materials Fee Required. (A-F Only) Lecture. Not repeatable.

FSCI 347—FIRE PREVENTION 1C 2.5 UNITS

45 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who can provide State Fire Training Certificate for Fire Prevention 1A and Fire Prevention 1B.

Provides fire service personnel with the third phase of State Certified Fire Prevention instruction. Includes instruction on flammable and combustible liquid hazards, storage and extinguishment. Materials fee required. Field trips might be required. Lecture. (A-F Only) Not repeatable.

FSCI 350—FIRE COMMAND 1A 2 UNITS

34 Lecture Hours, 6 Lab Hours

Prerequisite: Satisfactory completion of FSCI 301 with a minimum grade of C or better.

Fundamental skills for the First-in Incident Commander and company officers. Instruction and simulation time pertaining to the initial decision and action processes at a working fire. Topics include the fire officer, fire behavior, fireground resources, operations, and management. Materials Fee Required. (A-F Only) Lecture/Lab. Not repeatable.

FSCI 351—FIRE COMMAND 1B 2 UNITS

34 Lecture Hours, 6 Lab Hours

Prerequisite: Satisfactory completion of FSCI 301 and FSCI 350.

Prepares fire officers for command of various emergency incidents. Emphasizes development of management and decision making practices required for success. Topics include use of the Incident Command System to manage major disasters, wildland fires, multi-casualty and hazardous materials incidents. Materials Fee Required. Field trips might be required. Lecture/Lab. (A-F Only) Not repeatable.

FSCI 352—TRAINING INSTRUCTOR 1A 2.5 UNITS

45 Lecture Hours

Formerly listed as: FSCI 352: Fire Instructor 1A

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301 and/or Possess a California Firefighter I certificate.

The first of a three course series to prepare in-service firefighters to become a company officer and or a California State Fire Training Level 1 Instructor. Training instructor courses must be taken in order 1A, 1B then 1C. Topics include methods and techniques for cognitive training in accordance with current concepts in vocational education. Emphasis on selecting, adapting, organizing, and using instructional materials appropriate for teaching cognitive lessons. Personnel enrolled will be responsible to learn principles of learning, levels of instruction, methods of selecting, adapting, organizing and evaluating instructional efficiency. All students will complete all assignments and deliver two student lead cognitive teaching demonstrations, and must pass a state certified written test. Materials fee required. Field trips are not required. (A-F Only) Lecture. Not repeatable.

FSCI 353 —TRAINING INSTRUCTOR 1B 2.5 UNITS

45 Lecture Hours

Formerly listed as: FSCI 353: Fire Instructor 1B

Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Training Instructor 1A.

This is the second class of a three course series to prepare in-service firefighters to become a company officer and or a California State Fire Training Level 1 Instructor. Training instructor courses must be taken in order 1A, 1B then 1C. Topics include methods and techniques for psychomotor training in accordance with current concepts in vocational education. Emphasis on selecting, adapting, organizing, evaluating instruction appropriate for teaching psychomotor lessons. Personnel enrolled will be responsible

to learn methods of employing the four-step-method of instruction for psychomotor training. All students will complete all assignments and deliver two student lead psychomotor teaching demonstrations, and pass a state certified written test. Enrolled students must present course instructor with a Training Instructor 1A state certification the first day of class. Materials Fee Required. (A-F Only) Lecture. Not repeatable.

FSCI 354—FIRE PREVENTION 1A 2.5 UNITS

45 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have completed their firefighter probation or have supervisor's approval for enrollment if still on probation.

Designed to provide prospective or active Fire Company Officer and Fire Prevention personnel with basic fire prevention information. Structured to prepare the student for responding to a variety of fire prevention situations in a professional and effective manner. Materials fee required. Field trips might be required. (A-F Only) Lecture. Not repeatable.

FSCI 355—FIRE PREVENTION 1B 2.5 UNITS

45 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Fire Prevention 1A.

Designed to provide fire service personnel with the second phase of state certified fire prevention instruction. Includes instruction on private water systems, fixed fire extinguishing, detection and alarm systems. Materials fee required. Field trips are required. (A-F Only) Lecture. Not repeatable.

FSCI 356—FIRE MANAGEMENT 1 2.5 UNITS

45 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.

Designed to provide the fire service student with instruction in the elements of organizational process, demonstration of growth and development in the use of managerial skills, applications of the course content to fire service work and personal life, location and use of managerial resources, and development of an action plan. Materials fee required. Field trips might be required. (A-F Only) Lecture. Not repeatable.

FSCI 357—FIRE INVESTIGATION 1 2.5 UNITS

45 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.

Examines the national arson problem, fire investigation responsibilities, conduct of the investigator; fire chemistry, heat energy sources and explosive conditions; fire investigation techniques and legal aspects of fire investigation. Materials fee required. Field trips are required. (A-F Only) Lecture. Not repeatable.

FSCI 362—BASIC FIRE ACADEMY 8 UNITS

108 Lecture Hours, 108 Lab Hours

Prerequisite: Satisfactory completion of FSCI 301 and EMS 350.

Limitations on Enrollment: Enrollment limited to students who are accepted into the Fire Academy program by Fire Academy Selection Committee and who possess CPAT certification, per NFPA 1582 regulation.

Basic knowledge and skills of a fire fighter as set by the State Fire Marshal.

Successful completion of the course fulfills the educational requirement for Fire Fighter I. Materials fee required. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (MJC FSCI 362+363=CC FIRE 7, FIRE 50, FIRE 101, FIRE 106, FIRE 108, FIRE 110)

FSCI 363—ADVANCED FIRE ACADEMY 9 UNITS

81 Lecture Hours, 243 Lab Hours

Prerequisite: Satisfactory completion of FSCI 362.

Basic Fire Academy is the second of two courses of the Fire Academy designed for the individual who desires a career as a professional firefighter. This course includes instruction in ventilation, vehicle extrication, ICS 200, 67-hr. Wildland Firefighting, Confined Space Awareness, Low-Angle Rope Rescue Operations, Hazmat Operations/ Decon, Fire Fighter Survival. Materials fee required. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (MJC FSCI 362+363=CC FIRE 7, FIRE 50, FIRE 101, FIRE 106, FIRE 108, FIRE 110)

FSCI 364—FIRE APPARATUS DRIVER/OPERATOR 1A 2 UNITS

27 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 362.

Limitations on Enrollment: Enrollment limited to students who possess a valid

California Driver's License, class B, firefighter restricted (minimum).

Continued development of a fire fighter's career. Operation of emergency vehicle and pump operations. How to drive and maintain various types of vehicles. Pump operation and uses for water sources and determining water flow. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CC FIRE 29A + 29B)

FSCI 366—FIRE APPARATUS DRIVER/OPERATOR 1B 2 UNITS

34 Lecture Hours, 6 Lab Hours

Limitations on Enrollment: Enrollment limited to students who possess a valid California Driver's License, class B, firefighter restricted (minimum).

Pump construction and theory of pump operations. Topics include: methods for performing basic hydraulics and techniques on basic inspections, documentation, maintenance, and troubleshooting fire pumps. Each student also has the opportunity to increase his or her pumping skills during simulated pumping conditions. Materials Fee Required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable.

FSCI 367—FIRE INVESTIGATION 1B 2.5 UNITS

45 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Fire Investigation 1A.

This course provides a deeper understanding of fire investigation and builds on Fire Investigation 1A. Topics include: The juvenile fire setter, report writing, evidence preservation and collection, interview techniques, motives, and fire fatalities. Materials fee required. Field trips might be required. (A-F Only) Lecture. Not repeatable.

FSCI 369—TRAINING INSTRUCTOR 1C 2.5 UNITS

36 Lecture Hours, 27 Lab Hours

Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Training Instructor 1A and a State Fire Training Certificate for Training Instructor 1B.

This is the third of a three-course series to prepare in-service firefighters to become a California State Fire Training Level 1 instructor. Topics include methods and techniques for developing and delivering cognitive and psychomotor lesson plans. Emphasis on developing lesson plans, ancillary components, and testing tools for cognitive and psychomotor lessons. Personnel enrolled will be responsible to learn methods for developing and delivering cognitive and psychomotor lessons. All students will develop and deliver two student lead teaching demonstrations and pass a state certification test. Enrolled students must present course instructor with a Training Instructor 1A and 1B certificate on the first day of class. Materials fee required. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable.

FSCI 371—FIRE COMMAND 2A **2.5 UNITS**

45 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Fire Command 1A and I-300.

Prepares Fire Officers to use management techniques and Incident Command System when commanding multiple alarms or large combat forces. Materials fee required. Field trips might be required. (A-F Only) Lecture. Not repeatable.

FSCI 372—FIRE MANAGEMENT 2B **2.5 UNITS**

45 Lecture Hours

Formerly listed as: FSCI 372B: Fire Management 2B

Limitations on Enrollment: Enrollment limited to students who can provide

State Fire Training Certificate for Fire Management 1.

Covers the purpose of budgeting, budget controls, types of budgets and budget systems and justifying budgets. Materials fee required. Field trips might be required. (A-F Only) Lecture. Not repeatable.

FSCI 373—FIRE INSTRUCTOR 2A **2.5 UNITS**

45 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who can provide

State Fire Training Certificate for Training Instructor 1A, Training Instructor 1B, and Training Instructor 1C.

The first of three State Fire Training courses for Fire Instructor II certification. Advanced skill development for instructors who are responsible for evaluating performance. Course work provides the student with the techniques of evaluation. Course content includes construction of written and performance tests. Students will apply concepts of test planning, test analysis, test security, and test evaluation to determine instructor and student effectiveness. This is an essential course for writing valid and objective Fire Service tests. Materials fee required. Field trips are not required. (A-F Only) Lecture. Not repeatable.

FSCI 374—FIRE INSTRUCTOR 2B **2.5 UNITS**

45 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who can provide State Fire Training Certificates for Fire Instructor 1A and 1B, or Training Instructor 1A, 1B, and 1C.

Second of three courses for California State Fire Training, Fire Instructor II certification. Students receive advanced leadership and development skills for planning staff level training and group meetings. Course work includes information on group dynamics, problem-solving techniques, interpersonal relations, staff meetings, brainstorming sessions, panel discussions, conferences and forums. Materials fee required. Field trips are not required. (A-F Only) Lecture. Not repeatable.

FSCI 375—FIRE INSTRUCTOR 2C **2 UNITS**

30 Lecture Hours, 10 Lab Hours

Prerequisite: Satisfactory completion of FSCI 352 and FSCI 353.

Principles of media in the instructional process; selection of audio-visual and instructional media; employment of basic and advanced forms of instructional media; use of computers in the instructional process; individualized instruction programs. Materials Fee Required. Field trips might be required.(A-F Only) Lecture/Lab. Not repeatable.

Fire Technology Courses (FTECH)

FTECH 301XABC—INCIDENT COMMAND SYSTEMS **0.5 - 3 UNITS**

X=9 Lecture Hours, A=18 Lecture Hours, B=36 Lecture Hours,

C=54 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who are certified firefighters.

Provides description and detail of the Incident Command System (ICS) organization and operations in supervisory roles on all types of emergency incidents. Materials fee required. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable.

FTECH 310XABC—RESCUE SYSTEMS AND OPERATIONS **0.5 - 3 UNITS**

X=9 Lecture Hours A=18 Lecture Hours, B=36 Lecture Hours,

C=54 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who are able to provide Low Angle Rescue (LAR) course certification.

Principles and practices of basic fire service; how to safely and effectively participate in rescue operations. Materials fee required. (A-F or P/NP) Lecture. Not repeatable.

Food and Nutrition Courses (FDNTR)

FDNTR 219—INTRODUCTION TO NUTRITION SCIENCE **3 UNITS**

54 Lecture Hours

Formerly listed as: FDNTR - 219: Nutrition

Recommended for Success: Before enrolling in this course, students are strongly advised to have successfully completed a laboratory chemistry course in high school or college or be concurrently enrolled in a laboratory chemistry course in college.

Scientific concepts of nutrition related to the function of nutrients in basic life processes; relationship of nutrition to optimum health, dietary changes, and disease. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC BIOL 50) **General Education**: (MJC-GE: E) (CSU-GE: E)

FDNTR 220—PRINCIPLES OF FOODS WITH LAB **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of FDNTR 219.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Application of food science principles with emphasis on ingredient function and interaction, food preparation techniques, sensory evaluation standards, food safety and sanitation, and nutrient composition of food. Field trips might be required. Not repeatable. (A-F or P/NP) Lec/Lab. **Transfer**: (CSU) (C-ID: NUTR 120)

French Courses (FREN)

FREN 51—INTRODUCTORY FRENCH 1 **3 UNITS**

54 Lecture Hours

Formerly listed as: FREN 51: Introduction to Practical French 1

Slow-paced, non-transferable course designed for people who have never studied French and/or another foreign language. Introduction to elementary French grammar and pronunciation. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **General Education**: (MJC-GE: C)

FREN 52—INTRODUCTORY FRENCH 2 **3 UNITS**

54 Lecture Hours

Formerly listed as: FREN 52: Introduction to Practical French 2

Prerequisite: Satisfactory completion of FREN 51.

Continuation of FREN 51 Slow-paced, non-transferable course designed for people who wish to continue from French 51. Basic French grammar and pronunciation. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **General Education**: (MJC-GE: C)

FREN 101—FRENCH 1 **5 UNITS**

90 Lecture Hours

Essentials of written and spoken French, simple composition, conversation, and reading. Equivalent to the satisfactory completion of two years of high school French. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

FREN 102—FRENCH 2 **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of FREN 101.

Continuation of FREN 101. Expansion of verb tenses, vocabulary and commonly used expressions. Emphasis on past, future, and conditional present verb tenses. Equivalent to the satisfactory completion of three years of high school French. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A)

FREN 103—FRENCH 3 **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of FREN 102.

Review of French grammar; reading and conversational practice. Includes reading and discussion in French of selections from literary works of French writers. Equivalent to the satisfactory completion of four years of high school French. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A)

FREN 104—FRENCH 4 **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of FREN 103.

Review and expansion of grammatical structures covered in FREN 103. Includes reading and discussion in French of literary works of French and Francophone writers. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A)

Geography Courses (GEOG)

GEOG 101—PHYSICAL GEOGRAPHY **3 UNITS**

54 Lecture Hours

Spatial study of the Earth's dynamic physical systems and processes. Examination of Earth-sun relationships including weather, climate, vegetation, soils, landforms, and tectonics. Emphasis upon interrelationships between humans and the environment, resulting patterns and distributions. Field trips might be required. Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: GEOG 110) (CC GEOGR 15) **General Education**: (MJC-GE: A) (CSU-GE: B1) (IGETC: 5A)

GEOG 102—CULTURAL GEOGRAPHY **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Introduction to origins and global distribution of cultures. Examines cultural adaptations to the earth, human modifications of the landscape, and patterns of human organization as exemplified in population, agriculture, language, religion, political organization, popular culture, and economic development. Issues addressed include famine, political conflict, multiculturalism, suburban sprawl, industrial relocation and third world development. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: GEOG 120) (CC GEOGR 12) **General Education**: (MJC-GE: B) (CSU-GE: D5) (IGETC: 4E)

GEOG 104—CALIFORNIA GEOGRAPHY **3 UNITS**

54 Lecture Hours

Formerly listed as: GEOG 104: Ca Geography

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Introduction to California's unique geography; examining political, economic, cultural,

physical, and historical processes and characteristics. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: GEOG 140) **General Education**: (MJC-GE: B) (CSU-GE: D5) (IGETC: 4E)

GEOG 105—ECONOMIC GEOGRAPHY 3 UNITS

54 Lecture Hours

Global distribution of economic activities. Role of raw materials, labor, transport, and market location upon Industrial activity. Discussion of economic development, globalization of manufacturing, de-industrialization, and corporate behavior. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D2, D5) (IGETC: 4B, 4E)

GEOG 109 —INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as: GEOG 109: Introduction to Geographic Information

Introduction to Geographic Information Systems (GIS). GIS centers upon mapping as a tool for identifying and assessing the locations of human activity. Applications to business, economics, weather, geology, real estate, agriculture, etc. Students will create and evaluate databases which generate maps using ArcView. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC GEOGR 60) (C-ID: GEOG 155)

GEOG 110—WORLD REGIONAL GEOGRAPHY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to complete English 101.

Survey of the world's major geographical regions and their physical, economic, political, and cultural characteristics. Emphasis is placed upon historical influences which explain current problems and conditions. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: GEOG 125) (CC GEOGR 20) **General Education**: (MJC-GE: B) (CSU-GE: D5) (IGETC: 4E)

Geology Courses (GEOL)

GEOL 160—INTRODUCTION TO GEOLOGY 3 UNITS

54 Lecture Hours

Study of the composition of the Earth, and the physical and chemical processes which shape it. Topics include plate tectonics, volcanism, earthquakes, rocks and minerals, weathering, and erosion. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: GEOL 100) **General Education**: (MJC-GE: A) (CSU-GE: B1) (IGETC: 5A)

GEOL 161—PHYSICAL GEOLOGY 4 UNITS

54 Lecture Hours, 54 Lab Hours

Study of the physical and chemical processes that shape the earth, including plate tectonics, volcanism, weathering, and erosion; the composition of the earth; and geologic hazards such as mass wasting, flooding and earthquakes. Laboratory topics include rock and mineral identification, and the use of maps and aerial photographs to understand erosional and tectonic processes. Field trips might be required.(A-F or P/ NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC ESC 5) (C-ID: GEOL 101) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

GEOL 165—GEOLOGY OF CALIFORNIA 3 UNITS

54 Lecture Hours

Formerly listed as: GEOL 165: Geology of CA

The geologic setting and evolution of California's geomorphic provinces. Emphasis on processes that have and are still acting to shape the landscape: volcanism, earthquakes, and erosion. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: GEOL 200) **General Education**: (MJC-GE: A) (CSU-GE: B1) (IGETC: 5A)

GEOL 166—HISTORICAL GEOLOGY 4 UNITS

54 Lecture Hours, 54 Lab Hours

Introduction to the origin, development, and evolution of the earth and its inhabitants. Topics include the study of fossils and rocks, continents and ocean basins, geologic time, plate tectonics, climate change and mass extinctions. Laboratory utilizes rocks, fossils and stratigraphic principles to decipher ancient environments. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: GEOL 111) (CC ESC 23) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

GEOL 171 XAB—GEOLOGY FIELD STUDIES 0.5-2 UNITS

X=9 Discussion Hours, A=18 Discussion Hours, B= 36 Discussion Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete or concurrently enroll in a geology or earth science course.

Introduction to basic geological concepts through field trips to areas of geologic significance. Emphasis will be on the materials and structures that compose a landscape, and the history and evolution of the areas visited. Field trips are required. (A-F or P/NP) Discussion. Not repeatable. **Transfer**: (CSU, UC) (CC ESC 35)

GEOL 172—GEOLOGY OF YOSEMITE VALLEY 0.5 UNITS

9 Disc Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have successfully completed any geology or earth science course, or get consent of the instructor.

Application of the principles of geology to interpret rock sequences,landscapes, and tectonic structures in Yosemite Valley and the Merced River Valley Field trips are required. (A-F or P/NP) Not repeatable. Transfer: (CSU)

GEOL 173—GEOLOGY OF PINNACLES NATIONAL PARK 0.50 UNITS

9 Disc Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have successfully completed any geology or earth science course, or get consent of the instructor.

Application of the principles of geology to interpret rock sequences and tectonic structures in Pinnacles National Park and along the San Andreas fault in California's Coast Ranges. Field trips are required. Not repeatable. (A-F or P/NP) Not repeatable. **Transfer**: (CSU)

GEOL 174—GEOLOGY SUMMER FIELD STUDIES 3 UNITS

54 Discussion Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete a college-level course in geology or Earth science.

Application of principles of geology through extended field studies at selected sites in the western United States and other geologically significant locations. Skills developed

in rock, mineral, and fossil identification, and use of geological field equipment. Requires ability to work and study under rigorous conditions. Field trips might be required.(A-F or P/NP) /Discussion. Not repeatable. **Transfer**: (CSU)

GEOL 175— CAVERNS AND KARST TOPOGRAPHY OF THE SIERRA NEVADA 0.50 UNITS

9 Disc Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have successfully completed any geology or earth science course, or get consent of the instructor.

Study of caverns and karst topography of the Sierra Nevada and application of the principles of geology to interpret rock sequences and tectonic structures exposed within the region Field trips are required. (A-F or P/NP) Discussion. Not repeatable. **Transfer**: (CSU)

GEOL 176—GEOLOGY OF CALIFORNIA'S MOTHER LODE 0.50 UNITS

9 Disc Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have successfully completed any geology or earth science course, or get consent of the instructor.

History of the California Gold Rush and application of the principles of geology to interpret rock sequences and tectonic structures revealed in the California Mother Lode. Field trips are required. Not repeatable. (A-F or P/NP) Discussion. **Transfer:** (CSU)

GEOL 180—GEOLOGY OF THE CENTRAL SIERRA NEVADA 1 UNIT

18 Disc Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have successfully completed any geology or earth science course, or get consent of the instructor.

Application of the principles of geology to interpret rock sequences and tectonic structures in the central part of the Sierra Nevada, including Yosemite National Park and the Sonora Pass region. Requires ability to work and study under rigorous conditions. Field trips are required. (A-F or P/NP) Discussion. Not repeatable. **Transfer**: (CSU)

GEOL 181—GEOLOGY OF SEQUOIA AND KINGS CANYON 1 UNIT

18 Disc Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have successfully completed any geology or earth science course, or get consent of the instructor.

Application of the principles of geology to interpret rock sequences and tectonic structures at Sequoia and Kings National Parks in the southern Sierra Nevada. Field trips required. Requires ability to work and study under rigorous conditions. Field trips are required. Not repeatable. (A-F or P/NP) Discussion. **Transfer**: (CSU)

GEOL 182—GEOLOGY OF THE CALIFORNIA COASTLINE 1 UNIT

18 Disc Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have successfully completed any geology or earth science course, or get consent of the instructor.

Application of the principles of geology to interpret rock sequences, tectonic structures, coastal processes, and coastal landforms along the central California coastline. Requires ability to work and study under rigorous conditions. Field trips are required. Not repeatable. (A-F or P/NP) Discussion. **Transfer:** (CSU)

GEOL 185—GEOLOGY OF CALIFORNIA'S VOLCANOES 2 UNITS

36 Disc Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have successfully completed any geology or earth science course, or get consent of the instructor.

Application of the principles of geology to interpret rock sequences and evaluate the potential for volcanic activity in the Cascades Range and Modoc Plateau region of Northern California. Requires ability to work and study under rigorous conditions. Field trips are required. (A-F or P/NP) Discussion. Not repeatable. **Transfer**: (CSU)

GEOL 186—GEOLOGY OF THE EASTERN SIERRA NEVADA 2 UNITS

36 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have successfully completed any geology or earth science course, or get consent of the instructor.

Application of the principles of geology to interpret rock sequences and tectonic structures in the eastern Sierra Nevada and Owens Valley of California. Requires ability to work and study under rigorous conditions. Field trips are required. Field trips are required. (A-F or P/NP) Lecture. **Transfer**: (CSU)

GEOL 187—GEOLOGY OF THE DEATH VALLEY REGION 2 UNITS

36 Disc Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have successfully completed any geology or earth science course, or get consent of the instructor.

Application of the principles of geology to interpret rock sequences and tectonic structures in Death Valley and the Mojave Desert of California. Requires ability to work and study under rigorous conditions. Field trips are required. (A-F or P/NP) Discussion. Not repeatable. **Transfer**: (CSU)

GEOL 190—INTERNATIONAL GEOLOGY FIELD STUDIES 3 UNITS

54 Disc Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have successfully completed any geology or earth science course, or get consent of the instructor.

Application of principles of geology through extended field studies at geologically significant sites overseas and in international settings. Requires ability to work and study under rigorous conditions. Field trips are required. Not repeatable. (A-F or P/NP) Discussion. **Transfer**: (CSU)

GEOL 191—GEOLOGY OF THE COLORADO PLATEAU 3 UNITS

54 Disc Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have successfully completed any geology or earth science course, or get consent of the instructor.

Application of the principles of geology to interpret rock sequences and tectonic structures of the Colorado

Plateau, including Grand Canyon, Zion, Bryce Canyon, and other national parks and monuments in the Four Corners region. Requires ability to work and study under rigorous conditions. Field trips are required. (A-F or P/NP) Not repeatable. **Transfer**: (CSU)

GEOL 192—GEOLOGY OF THE PACIFIC NORTHWEST 3 UNITS

54 Disc Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to successfully complete any geology or earth science course, or get consent of the instructor.

Application of the principles of geology to interpret rock sequences and tectonic structures in the Pacific Northwestern Cordillera, including the Cascades Range Volcanoes, the Columbia Plateau, and the northern Rocky Mountains of the United States and Canada. Requires ability to work and study under rigorous conditions. Field trips are required. (A-F or P/NP) Discussion. Not repeatable. **Transfer**: (CSU)

German Courses (GERM)

GERM 101—GERMAN 1 5 UNITS

90 Lecture Hours

Essentials of written and spoken German, simple composition, conversation, and reading. Equivalent to satisfactory completion of two years of high school German. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

GERM 102—GERMAN 2 5 UNITS

90 Lecture Hours

Prerequisite: Satisfactory completion of GERM 101.

Continuation of German 101. Review and expansion of tenses, vocabulary and commonly used expressions. Equivalent to the satisfactory completion of three years of high school German. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A)

Gerontology Courses (GERON)

GERON 101—AGING IN AMERICA 3 UNITS

54 Lecture Hours

Analysis of the aging process from a multidisciplinary approach, including sociology, psychology, and physiology. Students will have an opportunity to explore their beliefs, feelings, and values regarding the aged population. Field trips might be required. (AF or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

Guidance/Counseling Courses (GUIDE)

The Guidance program is an integral part of the counseling services. Students who take guidance skills courses will learn to:

• Acquire, organize and demonstrate problem-solving and decision-making skills;

• Explore, evaluate and pursue career and educational options;

• Develop social, intellectual and emotional competencies; develop needed skills and strategies to maximize the educational experience;

• Understand themselves, others and their environment to enable them to develop individual value systems and life styles.

One of the following courses must be taken to fulfill the guidance graduation requirement: GUIDE 109, 110, 111, 112, 116, or 120. Students should enroll in a Guidance class their first semester of attendance at MJC.

GUIDE 109—INTERNATIONAL STUDENT/NEW AMERICAN FOCUS 1 UNIT

18 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ESL 40 and satisfactorily complete ESL 44.

Education and career planning for students whose previous education has been outside the United States. Acquaints students with the college, its curriculum, facilities, services, academic regulations, programs, degree and Transfer requirements. Reviews extra curricular activities, personal adjustment, American customs, culture shock, and survival techniques. Students must complete a conference with a counselor during the semester. A comprehensive educational plan is developed. Field trips are not required. Lecture. (P/NP Only) Not repeatable. **Transfer**: (CSU) **Local Requirement**: (Guidance)

GUIDE 110— INTRODUCTION TO COLLEGE 0.5 UNITS

9 Lecture Hours

Formerly listed as: GUIDE - 110: Educational Planning

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 49 or satisfactorily complete READ 40 or qualification by the MJC assessment process.

Acquaints MJC students with the college, its curriculum, facilities, services, academic regulations, vocational and certificate programs, degree and Transfer requirements. Students may complete a conference with a counselor individually, in a group, or online to develop an educational plan according to each student's needs and goals. Recommended for students who already have an educational goal and a tentative major selected. Field trips are not required. Lecture. Not repeatable. **Transfer**: (CSU) (CC GUIDE 107) **Local Requirement**: (Guidance)

GUIDE 111—CAREER EXPLORATION 1 UNIT

18 Lecture Hours

Formerly listed as: GUIDE - 111: Career Awareness

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL

49 or satisfactorily complete READ 40 or qualification by the MJC assessment process.

Assists students in exploring career alternatives through development of skills necessary for the research, selection and planning of a life-long career. The role of attitudes,

interests, values and skills will be addressed. Interests, temperament/ personality and values tests may be used. Important aspects of occupational choice will be covered along with occupational information. An educational plan will be developed. Students must complete a conference with a counselor during the semester. Materials fee required. Field trips are not required. (P/NP Only) Lecture. Not repeatable. **Transfer**: (CSU) (CC GUIDE 11) **Local Requirement**: (Guidance)

GUIDE 112 —JOB PREPARATION SKILLS **1 UNIT**

18 Lecture Hours

Formerly listed as GUIDE 112 - Job Hunting Skills

Recommended for Success: Before enrolling in this course, students are strongly advised to have a comprehensive educational plan from a MJC counselor. Realities of the job market and techniques for conducting a successful job search. Emphasis on learning about job application procedures, resume writing and interviewing skills. Field trips are not required. Not repeatable. (P/NP Only) **Transfer**: (CSU) (CC: GUIDE/BUSAD 25) **Local Requirement**: (Guidance)

GUIDE 116—ORIENTATION FOR RE-ENTRY ADULTS **2 UNITS**

36 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to speak, write, and understand the English language.

Designed to help new or returning adult students be successful in college after having been out of school for a number of years. Acquaints students with college services, programs, and requirements, and numerous topics related to academic and career success. These topics include adult transitions, self exploration, educational planning, study skills, time management, learning styles, goal setting, career exploration, and other topics related to student success. Students must complete a conference with a counselor during the semester. An educational plan will be developed based on student's academic and career goals. Field trips are not required. (P/NP Only) Lecture. Not repeatable. **Transfer**: (CSU) **Local Requirement**: (Guidance)

GUIDE 120—SUCCESS STRATEGIES FOR TRANSFER STUDENTS **3 UNITS**

54 Lecture Hours

Increase success in college, career and life by obtaining skills, techniques and attitudes necessary to reach personal goals. Explore personality, interests, skills and values to increase self-awareness and select appropriate major and career. Topics include: educational planning and Transfer strategies, career trends, motivation and learning styles, principles of learning and memory, critical and creative thinking, research strategies, note-taking, subject-specific study techniques, wellness, time and stress management, diversity, textbook study methods. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Guidance)

Health Education Courses (HE)

The expanding field of health education through public or community agencies and the schools will require trained professionals for positions of leadership and supervision. The professionals will be dealing with such complex issues as physical and mental well-being, substance abuse, exercise, environmental and consumer health, disease control, human sexuality, family relations, death and dying, first aid and emergency care. Since careers in the Health Education field usually require a minimum of a four-year degree, health education majors at MJC are given an introduction to health through basic health and safety courses and are advised to follow **General Education** and **Transfer** requirements for four-year colleges and universities.

HE 101— EMERGENCY MEDICAL RESPONSE; CPR PRO/HEALTHCARE PROVIDER **3 UNITS**

54 Lecture Hours

Formerly listed as: HE 101: Emergency Response/CPR FPR

Course designed to provide first responder capabilities necessary in an emergency to help sustain life, reduce pain, minimize the consequences of injury or sudden illness, and to provide emergency care of the sick and injured. CPR for the Professional/ Health Care Provider, Automated External Defibrillator, and Emergency Medical Response certificates issued upon satisfactory completion. Materials fee required. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC HHP 62) (C-ID: KIN 101)

HE 110—HEALTHFUL LIVING **3 UNITS**

54 Lecture Hours

A consideration of factors in the selection of a plan for healthful living. Emphasis on self-assessment through gathering and analyzing information while setting new health goals. Focus is placed on emotional, physical, social, spiritual, intellectual and environmental wellness in achieving human potential. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC HHP 60) **General Education**: (MJC-GE: E) (CSU-GE: E)

HE 111—WOMEN'S HEALTH ISSUES **3 UNITS**

54 Lecture Hours

Explore women's issues in relation to dimensions of wellness and lifestyle behaviors for fitness, nutrition, healthcare and reduction of chronic illnesses. Field trips are not required. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (CC HHP 2) Not repeatable. **General Education**: (MJC-GE: E) (CSU-GE: E)

HE 112—INTRODUCTION TO PUBLIC HEALTH **3 UNITS**

54 Lecture Hours

An introduction to the discipline of Public Health including basic concepts, terminologies, history and accomplishments of public health officials and agencies. An overview of the functions of various public health professions and institutions, and an examination of core public health disciplines. Topics of the discipline include the epidemiology of infectious and chronic disease; prevention and control of disease, illness and health disparities; community organizing and health promotion programming; environmental health and safety; global health; and healthcare policy and management. Field trips are not required. Not repeatable. (A-F or P/NP) **Transfer**: (CSU) (CID: PHS 101) **General Education**: (MJC-GE: B, E)

HE 114—HEALTH AND SOCIAL JUSTICE **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

This course provides an introduction to health inequities in the United States that stem from unequal living conditions. Students will explore how education, socioeconomic status, racism and gender influence health epidemics and health policy. In addition, basic skills necessary for advocating for health and social justice will be addressed. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU) (C-ID: PHS 102) **General Education**: (MJC-GE: B)

HE 118—EXERCISE AND NUTRITION FOR HEALTHY LIVING 3 UNITS

54 Lecture Hours

Theories of exercise including techniques of endurance, methods of strength attainment, and flexibility training. Nutrition concepts and influences on exercise and weight management. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) **General Education**: (MJC-GE: E)

History Courses (HIST)

HIST 101—HISTORY OF THE UNITED STATES TO 1877 3 UNITS

54 Lecture Hours

Formerly listed as: HIST 101: History of the United States Through Reconstruction

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Survey of United States history to 1877 exploring the intersection of politics, the economy, society, culture and geography. Periods covered include: American societies to 1492, the colonial period, the American Revolution, creation of the U.S. Constitution and federalism, the early national period, the antebellum period, the Civil War and Reconstruction. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (CC: HIST 16) (C-ID: HIST 130,) **General Education**: (MJC-GE: B) (CSU-GE: a - Group a, c - Group c, D6) (IGETC: 4F)

HIST 102—HISTORY OF THE UNITED STATES SINCE 1865 3 UNITS

54 Lecture Hours

Formerly listed as: HIST 102: History of the United States Post Civil War

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Survey of United States history from 1865 through contemporary period, exploring the intersection of politics, the economy, society, culture and geography. Periods covered include: Reconstruction, late-19th century industrialization, the American West, imperialism, the Progressive Era, World War I, the 1920s, the 1930s and the Great Depression, World War II, the Cold War, civil rights, and modern America. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (CC: HIST 17) (C-ID: HIST 140) **General Education**: (MJC-GE: B) (CSU-GE: a - Group a, c - Group c, D6) (IGETC: 4F)

HIST 104—WESTERN CIVILIZATION TO 1650 3 UNITS

54 Lecture Hours

Formerly listed as HIST 104 - Western Civilizations

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Survey of the social, economic, political, religious, intellectual, and cultural development of Western Civilization from the Neolithic to the Reformation. (A-F or P/NP) Lecture. Not repeatable. Field trips might be required. **Transfer**: (CSU, UC) (C-ID: HIST 170) **General Education**: (MJC-GE: B, C) (CSU-GE: C2, D6) (IGETC: 3B, 4F)

HIST 105—WESTERN CIVILIZATION SINCE 1650 3 UNITS

54 Lecture Hours

Formerly listed as: HIST 105: Western Civilization

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Survey of the political, economic, social, and cultural changes in the history of Western Civilization from 17th century Absolutism to the present. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: HIST 180) **General Education**: (MJC-GE: B, C) (CSU-GE: C2, D6) (IGETC: 3B, 4F)

HIST 106—WORLD CIVILIZATION TO THE 16TH CENTURY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

A comparative and interactive investigation and analysis of World Civilization as related to the development of the modern world. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC HIST 13) **General Education**: (MJC-GE: B, C) (CSU-GE: C2, D6) (IGETC: 3B, 4F)

HIST 107—WORLD CIVILIZATION FROM THE 16TH CENTURY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

A comparative study of World Civilizations from 1500 to the present. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC HIST 14) (C-ID: HIST 160) **General Education**: (MJC-GE: B, C) (CSU-GE: C2, D6) (IGETC: 3B, 4F)

HIST 112—20TH CENTURY AMERICA 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Explores the political, economic, social and cultural developments of twentieth century United States history. Topics include imperialism, progressivism, warfare, the depression, cold war, social justice and globalism. Field trips might be required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D6) (IGETC: 4F)

HIST 113— SOCIAL AND CULTURAL HISTORY OF THE UNITED STATES PRIOR TO THE 20TH CENTURY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

The first in a two-part series, this course examines the development of American society and culture prior to the 20th century. HIST 113 specifically analyzes the formation and evolution of American social institutions in response to indigenous American and immigrating European and African cultures. This course compares interpretations of race, gender, class, political economy and human rights to examine social and cultural transformations in America. Emphasis is placed on the evolution of state and federal constitutional government and the principle of inclusion. Contemporary local, State, and

Federal government developments are analyzed historically in relation to political and social movements as a foundation for contemporary social activism. Field trips might be required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: a - Group a, D3, D6) (IGETC: 4C, 4F)

HIST 115—ECONOMIC HISTORY OF THE UNITED STATES 3 UNITS

54 Lecture Hours

Also offered as: ECON 115

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Analysis of origins and development of business, infrastructure, labor, and agriculture from colonial period to present. Emphasis on federal government's role in development and regulation of business, infrastructure, labor and agriculture; government's role in national economic policy. Field trips are not required. (A-F or P/NP) Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: AI - GROUP A),(CSU-GE D2, D6) (IGETC: 4B, 4F)

HIST 116—WOMEN IN AMERICAN HISTORY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Study of the history of women in the United States, their experiences and contributions from the pre-colonial period to the present. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC HIST 21) **General Education**: (MJC-GE: B) (CSU-GE: D4, D6) (IGETC: 4D, 4F)

HIST 119— SOCIAL AND CULTURAL HISTORY OF 20TH CENTURY AMERICA 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

The second in a two-part series, HIST 119 examines the development of American society and culture in the 20th and 21st century. HIST 119 specifically analyzes American political and economic institutions and their interaction with Indigenous American, Latino/ Chicano, African American, European, and Asian American ethnicities. Particular attention is given to various historic and contemporary civil and human rights movements. Critical evaluation of the developing role of local, State, and Federal government in the inclusion of ethnic and gender participation. The gradual movement toward full protection of all peoples of America under State and Federal Constitutional law is emphasized. The effects of U.S. foreign and domestic policies on first and third world nations will be evaluated. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F) (CSU-GE: AI: GROUP A)

HIST 125—HISTORY OF MEXICO 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

This course surveys the political, social, economic, and cultural history of Mexico from Pre-Columbian times to the present. Discussion of major periods of Mexican history will focus on their contribution in shaping modern Mexico. No prior knowledge of Mexico or Spanish language is needed to succeed in this course. Field trips might be required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F)

HIST 128—HISTORY OF AMERICAN FAR WESTERN FRONTIER 3 UNITS

54 Lecture Hours

A regional history of frontier life in the trans-Mississippi West during the 19th century, including early exploration through the fur trade, territorial expansion, and the mining and farming frontier. Special emphasis is given to the contribution of Native Americans and Asian, African, Iberian and Mexican cultures in shaping the character of the American West. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F)

HIST 129—HISTORY OF CALIFORNIA 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Survey of California history from the first peoples to inhabit this region through the present. Themes include California's relationship to the rest of the nation, agriculture, politics, gender, race and ethnicity, social movements, water and other resources, etc. This course can be used to satisfy requirements for the Teacher Education degree. Field trips might be required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (CC: HIST 11) **General Education**: (MJC-GE: B) (CSU-GE: D6) (IGETC: 4F)

HIST 145—HISTORY OF LATIN AMERICA 3 UNITS

54 Lecture Hours

Formerly listed as HIST 145 - Latin American History

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Survey of Latin American history through the present, emphasizing changes and continuities in the political, economic, social, and cultural life of the continent. Examines issues such as: the colonial legacy, development and underdevelopment, ideas of race and ethnicity, relationship to the outside world, the construction of the nation-state, gender, and social, economic, and political movement. No prior knowledge of Latin America or Spanish language is needed to succeed in this course. Field trips might be required. Not repeatable. (A-F or P/ NP) **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D6) (IGETC: 4F)

HIST 154—AFRICAN AMERICANS THROUGH THE 19TH CENTURY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

First in a two-part series. A political, economic, technological and social history of African-American culture from early African forms through late 19th century America. Analysis of complex relationships between European, indigenous American and African-American ethnic groups. Inquiry into race, gender, and class disparities. Special emphasis on contributions to American society and culture by Black peoples. Comparisons of ethnic inclusion struggles and marginalization. Emphasis on the evolution of State and Federal Constitutional government and the principle of ethnic parity, disparity, and inclusion. Contemporary and historic local, State, and Federal government developments are analyzed in relation to political and social movements as a foundation for contemporary activism for human rights, and economic justice. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F) (CSU-GE: AI: GROUP A)

HIST 155—AFRICAN AMERICANS IN THE 20TH AND 21ST CENTURIES 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Second in a two-part series. Examines the political, economic, technological, and social history of African Americans from the end of the 19th century through the early 21st century. Specific analysis of complex relationships between European Americans, Latino/Chicano Americans, and African American ethnic groups. Inquiry into race, gender, and class disparities. Ongoing struggles for ethnic self-determination and inclusion are contrasted against institutional resistance and social marginalization. Emphasis on the evolution of State and Federal Constitutional government and the struggle for ethnic parity, disparity, and inclusion. Contemporary and historic local, State, and Federal government developments are analyzed in relation to political and social movements as a foundation for contemporary activism for civil rights, human rights, and economic justice. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F) (CSU-GE: AI: GROUP A)

HIST 192—INDEPENDENT STUDIES IN HISTORY 2 UNITS

36 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who receive instructor approval of completed Independent Study proposal.

Directed study of independent projects in history, with personalized instruction beyond the standard course work. Instructor approval is required. Field trips are not required. Not repeatable. (A-F Only) Lecture. **Transfer**: (CSU, UC) Note: UC credit awarded after transfer review.

Human Services Courses (HUMSR)

The Modesto Junior College Human Services programs provide knowledge and skills involved with the delivery of a wide variety of social services through various community social work and counseling agencies.

The two-year programs are designed to prepare students for entry-level employment in human service organizations as well as to upgrade current employees. They also provide a basis for future academic training leading to degrees in Social Work, Sociology, and Psychology.

HUMSR 40—INDEPENDENT LIVING SKILLS AND ACTIVITIES 1.5 UNITS

27 Lecture Hours

Formerly listed as Independent Living Skills

Non-degree course.

Provides foster youth ages 16-18 with the knowledge, information, survival skills and activities for daily living and foundation to transition from foster care to living independently in the community. Field trips might be required. Lecture. (P/NP Only) Not repeatable.

HUMSR 101—INTRODUCTION TO HUMAN SERVICES 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Introduction to the field of human services, and the role of paraprofessional workers in private and public settings on a local, state, and national level. The class provides an overview of the historical development of human services, professional values, processes, clinical skills, techniques, theoretical foundations, and current social issues. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) **General Education**: (MJC-GE: B)

HUMSR 103—INTRODUCTION TO HUMAN SERVICE CAREERS 0.5 UNITS

9 Lecture Hours

Introduction to careers in the human services profession, personal qualities, clinical skills, and academic requirements necessary for entry-level human service positions.

(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

HUMSR 104—AGING IN AMERICA 3 UNITS

54 Lecture Hours

Also offered as: GERON 101

Analysis of the aging process from a multidisciplinary approach, including gerontology, sociology, human services, psychology, and physiology. Students will have an opportunity to explore their beliefs, feelings, and values regarding the aged population. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

HUMSR 110—INTRODUCTION TO INTERVIEWING, COUNSELING 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactory completion of ENGL 101.

Introduction to the principles and practices of interviewing, counseling, and theoretical frameworks. Designed to assist in the preparation of paraprofessionals in the Human Services and other interrelated fields. Recognition and understanding of social problems, and the impact on human behavior. Lecture. (A-F or P/NP) Not repeatable. **Transfer**: (CSU)

HUMSR 111—COUNSELING IN CHEMICAL DEPENDENCY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactory completion of ENGL 101.

Concepts of counseling, therapy, personality development, and theoretical frameworks relevant to chemical dependency. Designed to assist the paraprofessional in the chemical dependency profession and other related fields. Clinical skills, assessment tools, techniques, crisis intervention strategies, and resolution will be covered. Lecture. (A-F or P/NP) Not repeatable. **Transfer**: (CSU)

HUMSR 113—CO-OCCURRING DISORDERS 3 UNITS

54 Lecture Hours

Introduction to the treatment needs of individuals who are diagnosed with a psychiatric disorder in combination with a chemical dependency disorder. Students will learn to identify, assess, and offer treatment to those with a dual diagnosis/co-occurring disorder. Field trips might be required.(A-F only) Lecture. Not repeatable. **Transfer**: (CSU)

HUMSR 114—DEATH AND DYING 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Exploration of feelings, belief systems, values and theoretical comprehension about death, dying, and the bereavement process from a historical, multidisciplinary, and cultural perspective. Topics include: coping mechanisms, counseling the dying, suicide, grief and bereavement, terminal illness, and multi-cultural concepts about death. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (CC SOCIO 28) **General Education**: (MJC-GE: B)

HUMSR 116—DRUGS AND ALCOHOL IN SOCIETY 3 UNITS

54 Lecture Hours

An introductory course that focuses on drug and alcohol use, abuse, and dependency in society. Covers causes for addiction, current trends, historical dimensions, prevention, treatment, multicultural considerations, and corresponding myths regarding chemical dependency and psychoactive drugs. Lecture. (A-F or P/NP) Field trips are not required. Not repeatable. **Transfer**: (CSU) (CC PSYCH 35)

HUMSR 117— INTERVENTION AND TREATMENT STRATEGIES IN CHEMICAL DEPENDENCY 3 UNITS

54 Lecture Hours

Recommended for Success: Satisfactory completion of ENGL 101

Prerequisite: Before enrolling in this course, students are strongly advised to satisfactory completion of HUMSR 111 and 116.

Continued development in the application of therapeutic techniques, clinical skills, and strategies relative to the treatment of chemical dependency. Emphasizes the intervention process, assessment tools, crisis counseling, theoretical foundations, recovery dynamics, and family systems. Lecture. (A-F or P/NP) Not repeatable. **Transfer**: (CSU)

HUMSR 118—PHARMACOLOGY OF ABUSED SUBSTANCES 3 UNITS

54 Lecture Hours

Also offered as: PSYCH 118

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete HUMSR 116 or satisfactorily complete PSYCH 101.

An introduction to psychopharmacology and the process of drug addiction. Topics include classification of abused and psychotherapeutic drugs, basic principles of pharmacology, behavioral and physiological effects of drugs, major neurotransmitter systems and how they are influenced by drugs. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

HUMSR 119— INTRODUCTION TO GROUP LEADERSHIP AND GROUP PROCESS 3 UNITS

54 Lecture Hours

An introduction to the dynamics of group interaction with an emphasis upon the individuals' subjective experience as the group studies itself (under supervision).

The factors involved in problems of communication, effective emotional responses, and personal growth will be highlighted. Emphasis on group process as a means of changing individual behavior. Field trips might be required.(A-F only) Lecture. Not repeatable. **Transfer**: (CSU)

HUMSR 120— PROFESSIONAL DEVELOPMENT IN THE HELPING PROFESSIONS 3 UNITS

54 Lecture Hours

Formerly listed as Professional Development in Chemical Dependency

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactory completion of ENGL 101.

Focuses on the application of clinical skills, theoretical foundations, strategies, techniques, ethical standards, and professional development in the Human Services and Chemical Dependency profession. Lecture. (A-F or P/NP) Not repeatable. **Transfer**: (CSU)

HUMSR 142—INTRODUCTION TO PSYCHOSOCIAL REHABILITATION 3 UNITS

54 Lecture Hours

Introduction to the field of psychosocial rehabilitation and its application in the public mental health system. The class provides an overview of the core practice models, principles, theories, and methods in psychosocial rehabilitation as related to the social sciences, and gives students a broad view of best clinical practices, social and psychological considerations in working with individuals who have psychiatric disorders using sociological concepts, theories, and methodology. Field trips might be required. Lecture. (A-F or P/NP) Not repeatable. **Transfer**: (CSU) **General Education**: (MJC-GE: B)

HUMSR 143—PSYCHOSOCIAL REHABILITATION PRACTICE 3 UNITS

54 Lecture Hours

Continued development in the field of psychosocial rehabilitation, and its application in the public mental health system. Designed to provide opportunities for students to practice and apply models of psychosocial rehabilitation, principles, theories, and methods related to the social sciences with individuals who have psychiatric disorders using sociological concepts and methodology. Field trips might be required. Lecture. (A-F or P/NP) Not repeatable. **Transfer**: (CSU) **General Education**: (MJC-GE: B)

HUMSR 144—HUMAN SERVICES PRACTICUM 1 UNIT

18 Discussion Hours

Formerly listed as: HUMSR 144: Community Agency Practicum Discussion

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete HUMSR 110 or satisfactorily complete HUMSR 111 and be currently enrolled in the CASRA or CAADE program at the college.

Analysis of fieldwork experiences in HUMSR 145A, 145B, or 145C. Sharing, evaluation, and discussion of supervised fieldwork experiences and placements. Continued development and enhancement of clinical skills, theoretical integration, knowledge base, professional values, and competence in the helping profession. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

HUMSR 145ABD—COMMUNITY AGENCY PRACTICUM 1,2,4 UNITS

A= 18 Disc Hours B= 36 Disc Hours D= 72 Disc Hours

Corequisite: Concurrent enrollment in HUMSR 144.

Supervised fieldwork experiences of students concurrently enrolled in HUMSR 144. Field trips might be required. Not repeatable. (A-F Only) **Transfer**: (CSU)

HUMSR 146— PSYCHOSOCIAL REHABILITATION WITH CHILDREN/FAMILIES **3 UNITS**

54 Lecture Hours

Introduction to the field of psychosocial rehabilitation with children and families, and its application to the public mental health system. The class provides an overview of the core practice models, principles, theories, and methods in psychosocial rehabilitation as related to psychology, human services, sociology, other interrelated fields, and gives students a broad view of the best clinical practices when working with children and families that have psychiatric disorders. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

Humanities Courses (HUMAN)

HUMAN 101—INTRODUCTION TO THE HUMANITIES **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be eligible for ENGL 101.

Introduction to major works of the humanities that focuses on the diversity of human experience and the relationships among arts and ideas. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

HUMAN 105—EARLY HUMANISTIC TRADITIONS **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have ENGL 101 eligibility.

Examination of creative and intellectual achievements from cultures around the world beginning with Prehistory and extending to the Renaissance. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC HUMAN 1) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

HUMAN 106—HUMANITIES IN THE MODERN WORLD **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have ENGL 101 eligibility.

Study of creative and intellectual achievements from cultures around the world, beginning with 1600's and extending into the 21st century. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC HUMAN 2) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

HUMAN 110—EAST MEETS WEST **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have ENGL 101 Eligibility.

Differences between Eastern and Western world cultures are explored. Works studied are chosen from the fields of art, music, philosophy, literature and/or architecture. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC HUMAN 3) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

HUMAN 130—INTRODUCTION TO WESTERN RELIGIONS **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be eligible for ENGL 101.

Origins and development of the three monotheistic religions of Western Civilization, Judaism, Christianity and Islam; scripture, beliefs, traditions, rituals, and celebrations; scripture of all three faiths, along with architecture and arts. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

HUMAN 140—INTRODUCTION TO WORLD MYTHOLOGY **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have ENGL 101 eligibility.

An overview of mythology which examines the nature, functions and meanings of myths throughout the world, their cultural contexts, artistic expressions, and influence in contemporary life. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

HUMAN 196—HUMANITIES SPECIAL TOPICS: SOCIAL JUSTICE **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advise to have ENGL 101 eligibility and have completed HUMAN 101 or HUMAN 105 or HUMAN 106 or HUMAN 110 or HUMAN 130 or HUMAN 140.

This course provides an interdisciplinary examination of specialized topics in the humanities. Specifics topics change each semester, providing exposure to different issues central to cultural conceptions of social justice. Field trips might be required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU)

HUMAN 197—HUMANITIES SPECIAL TOPICS: NATURE AND CIVILIZATION **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have ENGL 101 eligibility and have satisfactorily completed HUMAN 101 or HUMAN 105 or HUMAN 106 or HUMAN 110 or HUMAN 130 or HUMAN 140.

This course provides an interdisciplinary examination of specialized topics in the humanities. Specifics topics change each semester, providing exposure to different issues central to cultural conceptions of nature and civilization. Field trips might be required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) Note: UC credit awarded after transfer review.

HUMAN 198—HUMANITIES SPECIAL TOPICS: PLACE AND IDENTITY **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have ENGL 101 eligibility and have satisfactorily completed HUMAN 101 or HUMAN 105 or HUMAN 106 or HUMAN 110 or HUMAN 130 or HUMAN 140.

This course provides an interdisciplinary examination of specialized topics in the humanities. Specifics topics change each semester, providing exposure to different issues central to cultural conceptions of place and identity. Field trips might be required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) Note: UC credit awarded after transfer review.

Individualized Instruction and Services Courses (IIS)

IIS 13—IMPROVING LEARNING POTENTIAL **2 UNITS**

36 Lecture Hours

Non-degree course.

Specialized instruction for students with disabilities to maximize their learning potential and increase academic efficiency. Field trips are not required. Not repeatable. (A-F or P/NP)

IIS 15—ADAPTED KEYBOARDING **2 UNITS**

18 Lecture Hours, 54 Lab Hours

Non-degree course.

Designed to teach keyboarding basics to students with disabilities who must use assistive technologies for successful access to the keyboard or monitor and/or are unable to compete successfully in mainstream keyboarding courses. Lecture/ Laboratory. Not repeatable.

IIS 16—COMPUTER ACCESS 1 **2 UNITS**

27 Lecture Hours, 27 Lab Hours

Non-degree course.

Designed for students with visual, physical, acquired brain injury, language impairment, learning disabilities or deafness. Provides training in the use of computer access technologies which enhance a disabled student's ability to access and use microcomputers. Lecture/Laboratory. Not repeatable.

IIS 18—COMPUTER ACCESS PROJECTS **2 UNITS**

18 Lecture Hours, 54 Lab Hours

Non-degree course.

Designed for students with disabilities who require access to specialized assistive technologies in order to complete assignments for other classes in which they are concurrently enrolled. (A-F or P/NP) Lecture/Laboratory. Not repeatable.

IIS 20—MATH STRATEGIES FOR DISABLED STUDENTS **1 UNIT**

18 Lecture Hours

Non-degree course.

Limitations on Enrollment: Enrollment limited to students formally admitted into the Disability Services program.

Intended for new and re-entry students with disabilities who need additional instruction and compensatory strategies to learn and be successful within the traditional classroom. Specialized instruction will occur in disability awareness and in formulating strategies for success in the college environment. Field trips are not required. Not repeatable. (A-F or P/NP). Lecture

IIS 21—MAKING THE MOVE: TRANSITION TO COLLEGE **1 UNIT**

18 Lecture Hours

Non-degree course.

Intended for new and re-entry students with disabilities who need additional instruction and compensatory strategies to learn and be successful within the traditional classroom. Specialized instruction will occur in disability awareness and in formulating strategies for success in the college environment. Lecture. Not repeatable.

Interdisciplinary Studies Courses (INDIS)

The Interdisciplinary Studies Program emphasizes critical thinking, communication skills, and independent work. Students are accepted into the program not solely on the basis of past achievement but, most importantly, on their willingness to become members of an intellectually stimulating, interactive learning community.

INDIS 100—INTRODUCTION TO HONORS SCHOLARSHIP **3 UNITS**

54 Lecture Hours

Enrollment limited to those who have been admitted to the Honors program. Interpersonal communication theory and its practical application. Forms of philosophical inquiry that are applicable to the humanities, social sciences, arts, and physical sciences as well as their ethical and political applications. Library and information sources, including development of research strategies, and the retrieval, evaluation, and use of information. Lecture. (A-F only) Not repeatable. **Transfer**: (CSU)

Italian Courses (ITAL)

ITAL 101—ITALIAN 1 **5 UNITS**

90 Lecture Hours

Fundamentals of spoken and written Italian. Introduction to Italian cultures. Equivalent to the satisfactory completion of two years of high school Italian. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

Library and Information Technology Courses (LIBR)

The division of Library & Leaning Center offers a course that supports the information competencies applicable to college-level research and lifelong learning. This course is designed to benefit Transfer students who want to develop research skills using the information resources and services found in college libraries, as well as lifelong learners seeking to acquire skills necessary to thrive in an information society. The Library & Information Technology course is Transferable to four-year colleges and universities.

LIBR 100—RESEARCH CONCEPTS AND PRACTICE 3 UNITS

54 Lecture Hours

Formerly listed as: LIBR 100: Research Methodology, LR 100: Research Methodology

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Introduction to academic information sources, including traditional print resources, eBooks, online periodical and research databases, and the Web. Emphasis on the development of effective research strategies, and the retrieval, evaluation, and use of information for academic research assignments. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: D2)

Logistics Courses (LOGST)

The Logistics and Supply Chain Management program is designed to prepare students for entry level jobs in warehouse operations, inventory control, distribution center operations, transportation operations, production operations, procurement or customer service. Successful students will receive a vocational education that will provide the foundation for jobs such as warehouse clerk, distribution clerk, inventory clerk, logistics clerk, purchasing clerk, production scheduler or customer representative.

LOGST 200—INTRODUCTION TO LOGISTICS 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be familiar with financial spreadsheet software and Internet searches.

Fundamental concepts of logistics with an emphasis on outbound goods movement. Techniques of organizing, analyzing and controlling logistics systems. Topics include: supply chain, packaging, customer service, transportation, warehouse and distribution center site selection and procurement functions. Field trips might be required. (A-F Only) Lecture. **Transfer**: (CSU)

LOGST 201—OPERATIONS MANAGEMENT AND LEAN PRINCIPLES 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and satisfactorily complete MATH 20.

Describes the fundamental concepts, techniques, and application of the field of Operations Management with focus on goods and services, value chains, strategy and technology. Emphasis is also on operations design, operations execution, productivity and Lean principles. Field trips might be required. Not repeatable. Lecture. (A-F Only) **Transfer**: (CSU)

LOGST 202—INTRODUCTION TO SUPPLY CHAIN MANAGEMENT 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and satisfactorily complete MATH 20.

Provides an overview of essential Supply Chain Management concepts and processes. Topics include demand management, production/operations, order management, customer service, inventory management, transportation, distribution, and procurement. Field trips are not required. Not repeatable. Lecture. (A-F Only) **Transfer**: (CSU)

LOGST 203—INTRODUCTION TO TRANSPORTATION MANAGEMENT 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and satisfactorily complete MATH 20.

This course examines Transportation and its role in the supply chain and the economy. It also focuses on the basic modes of transportation as well as emerging issues and trends in transportation management. Field trips might be required. Not repeatable. Lecture. (A-F Only) **Transfer**: (CSU)

LOGST 205—INTRODUCTION TO WAREHOUSE MANAGEMENT 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and satisfactorily complete MATH 20.

Provides an overview of essential warehouse management concepts, processes and technologies. Topics include the role of the warehouse and the warehouse manager, warehouse processes and technology, as well as current issues and trends in warehouse management. Field trips might be required. Not repeatable. Lecture. (A-F Only) **Transfer**: (CSU)

LOGST 206—INTRODUCTION TO PURCHASING AND CONTRACTING 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and satisfactorily complete MATH 20.

This course introduces the students to fundamental concepts and processes of procurement. It also examines key contemporary procurement issues and applications. Field trips are not required. Not repeatable. Lecture. (A-F Only) **Transfer**: (CSU)

LOGST 207—INTRODUCTION TO CUSTOMER SERVICE 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Introduces students to the customer service skills that are essential in all types of organizations today. Demonstrates how effective customer service techniques can help customer service professionals and their organizations achieve critical goals, deal with problems and complaints, consistently exceed customer expectations, and create loyal customers. Field trips are not required. Not repeatable. Lecture. (A-F Only) **Transfer**: (CSU)

LOGST 299BD—LOGISTICS INTERNSHIP 2 OR 4 UNITS

B= 108 Lab Hours D= 216 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to complete all required program core courses and consult with the logistics faculty.

An internship program with selected logistics and supply chain organizations. Focus will be on one or multiple functions of supply chain. Students interns will be under joint supervision of the employers and faculty members. Intended to provide practical applications for students who have developed theoretical knowledge and effective interpersonal skills by completing their program's core course(s). One unit equals 60 hours of uncompensated work experience or 75 hours of compensated work experience. Field trips are not required. Not repeatable. Lab. (P/NP Only) **Transfer**: (CSU)

LOGST 300—GLOBAL LOGISTICS ASSOCIATE TRAINING 3 UNITS

54 Lecture Hours

The Global Logistics Associate (GLA) is an internationally recognized certification program that acknowledges the completion of rigorous coursework in logistics and supply chain for entry level positions. This certification program focuses on the general knowledge of transportation/logistics and the associated functions necessary for the delivery of goods. Field trips might be required. Not repeatable. (A-F Only)

LOGST 301—LIFT TRUCK OPERATIONS AND SAFETY TRAINING 2 UNITS

108 Lab Hours

This course provides behind-the-wheel lift truck operations and safety training. Field trips are not required. Not repeatable. (P/NP Only)

Machine Tool Technology Courses (MACH)

The Machine Tool Technology program provides training toward the acquisition of proficiency in the use of metal removal and metal forming machine tools. Training in calculations of cutting speeds and feeds, use of measuring tools, study of elementary metallurgy, and making adjustments are also emphasized. Special focus is given to care of equipment, orderliness, accuracy, speed, judgment, confidence and safe working habits.

MACH 211 D E —MACHINE TOOL TECHNOLOGY 1 4 - 5 UNITS

D= 54 Lecture Hours, 54 Lab Hours, E= 54 Lecture Hours, 108 Lab Hours

Formerly listed as: MACH 211D: Machine Tool Technology 1

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 20 and satisfactorily complete ESL 45.

This class is intended to address the situation of the traditional student with little or no experience in the manufacturing areas of the economy. The study and application of basic measuring tools, (steel rulers, vernier calipers & micromenters), layout tools and hand tools are addressed. The theory and practice of the use of drilling machines, bandsaws, lathes and vertical milling machines are a primary focus. This course meets California apprenticeship standards. Materials Fee Required Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

MACH 212DE—MACHINE TOOL TECHNOLOGY 2 4 - 5 UNITS

Formerly listed as: MACH 212D: Machine Tool Technology 2

D= 54 Lecture Hours, 54 Lab Hours, E= 54 Lecture Hours, 108 Lab Hours

Prerequisite: Satisfactory completion of MACH 211DE

This class is intended to address the situation of the traditional daytime student with little or no experience in the manufacturing areas of the economy and has completed MACH 211. The principles and fundamental use of precision grinders and advanced applications of the manual engine lathe and milling machine are a primary focus. Advanced levels of measuring systems, the study of basic metallurgy, and the techniques of heat treating to enhance the properties of metallic parts are addressed. Materials fee required. Field trips might be required. (A-F or P/NP) Not repeatable. Lecture/Lab. **Transfer**: (CSU)

MACH 213—MACHINE TOOL TECHNOLOGY 3 4 UNITS

36 Lecture Hours, 108 Lab Hours

Formerly listed as: MACH 213D: Machine Tool Technology 3 - Manufacturing

Prerequisite: Satisfactory completion of MACH 212DE or MACH 302.

Theory and practice in the use of the dividing head, metric system, classes of fit, tool and cutter grinding, gear cutting, and dovetails. Carbide cutting tools emphasized. Exploration and study of manufacturing processes found in local industries. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

MACH 218—INTRODUCTION TO CNC LATHE PROGRAMMING 2 UNITS

18 Lecture Hours, 54 Lab Hours

Formerly listed as: MFGA 218: Introduction to CNC Lathe Programming

Recommended for Success: Before enrolling in this course, students are strongly advised to have previous machining experience using manual or CNC lathes.

The use of manual programming techniques to develop tool path codes required to produce products using two axis CNC turning equipment. Effective cutting speeds, feeds, and depth of cut for various machining operations. The use of "canned cycles" with word address programming as well as conversational programming format will be addressed. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

MACH 219—INTRODUCTION TO CNC MILL PROGRAMMING 2 UNITS

18 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete courses or training that have provided them with experience in the use of manual or CNC milling machines.

The use of manual programming techniques to develop tool path codes required to produce products using CNC milling equipment. Effective cutting speeds, feeds, and depth of cut for various machining operations using "canned cycles" with word address programming as well as conversational programming format will be addressed. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

MACH 220—CNC MACHINE TOOL PROGRAMMING 2 UNITS

18 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be familiar with basic metal cutting practices, machine tool setup, and calculation of cutting tool speeds and feeds as encountered in the operation of manual lathes and milling machines; and have a working knowledge in the operation of personal computers; and have a basic understanding of formatting, structure, and codes used in the Word Address Format system of CNC programming.

The use of CAM (Computer Aided Manufacturing) programming techniques and software to develop tool path codes required to machine products using CNC milling and turning equipment. Materials Fee Required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

MACH 222—CNC MACHINE OPERATIONS 2 UNITS

27 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MACH 211DE or satisfactorily complete MACH 301 or have a working knowledge of the use of manually operated metal cutting lathes and milling machines and be able to use a micrometer to measure to within .001 inch.

The setup and operation of computer controlled machine tools with emphasis upon vertical machining centers and two axis turning centers. Primary controller operation, machine setup, tooling application, installation and adjustment and basic codes needed for editing will be addressed. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

MACH 223—ADVANCED CNC MACHINE OPERATIONS 3 UNITS

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of MACH 222.

Advanced setups, controller issues, and inspection techniques that may be encountered in the use of CNC controlled machine tools. May be completed up to 2 times. Field trips might be required. Lecture/Lab. (A-F or P/NP). Materials fee required. Not repeatable. **Transfer**: (CSU)

MACH 301—MACHINE SHOP 1 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as: MFGA 301: Machine Shop 1

Recommended for Success: Before enrolling in this course, students are strongly advised to be able to speak, read, and understand English.

This class is intended to address the needs of the working student who has had some experience in the manufacturing areas of the economy. The study and application of basic measuring tools, (steel rulers, vernier calipers & micrometers), layout tools and hand tools are addressed. The theory and practice of the use of drilling machines, bandsaws, lathes and vertical milling machines are a primary focus. Materials fee required. Field trips are not required. (A-F or P/NP) Lecture/Lab. Not repeatable.

MACH 302—MACHINE SHOP 2 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as: MFGA 302: Machine Shop 2

Prerequisite: Satisfactory completion of MACH 211DE or MACH 301.

This class is intended to address the needs of the working student who has had some experience in the manufacturing areas of the economy and has completed MACH 301. The principles and fundamental use of precision grinders and advanced applications of the manual engine lathe and milling machine are a primary focus. Advanced levels of measuring systems, the study of basic metallurgy, and the techniques of heat treating to enhance the properties of metallic parts are addressed. Materials fee required. Field trips are not required. (A-F or P/NP) Lecture/ Lab. Not repeatable.

MACH 303—MACHINE SHOP 3 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as: MFGA 303: Machine Shop 3

Prerequisite: Satisfactory completion of MACH 212DE or MACH 302.

The theory and practice in the use of the dividing head, gearing systems, tool and cutter grinding, and non-traditional machining systems is addressed. Carbide tooling emphasized. Materials fee required. Field trips are not required. (A-F or P/NP)Lecture/ Lab. Not repeatable.

MACH 311—CNC PROGRAMMING WITH MACROS 1 UNIT

9 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MACH 219 and have previous CNC programming experience or on-the-job training.

The application and practice of using macro techniques in the development of programs for the operation of CNC machine tools. Materials Fee Required. Field trips might be required.(P/NP Only) Lecture/Lab. Not repeatable.

MACH 312—4 AXIS MILL PROGRAMMING AND OPERATION 1 UNIT

9 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have had previous programming experience on CNC machining centers using word address format language.

The application and practice of programming, installing, and operating 4th axis rotary devices on CNC vertical machining centers. Materials Fee Required. Field trips might be required.(P/NP Only) Lecture/Lab. Not repeatable.

MACH 313—MANUFACTURING PROCESSES 2 UNITS

36 Lecture Hours

The exploration and study of manufacturing techniques and common industrial processes found in local industries. Field trips might be required. Lecture. Not repeatable.

MACH 315—3D PART PROGRAMMING FOR CNC 1 UNIT

9 Lecture Hours, 27 Lab Hours

Prerequisite: Satisfactory completion of MACH 220.

Application and practice of developing a program using CAD/CAM software that will direct a CNC machining center to cut a three dimensional contoured part. Materials fee required. Field trips might be required. (P/NP Only) Lecture/Lab. Not repeatable.

MACH 357—MACHINE TRADES PRINT READING 2 UNITS

36 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have a basic working knowledge of personal computers and have the ability to add, subtract, multiply, and divide numbers and have a working knowledge of the English language as applied to manufacturing processes.

Interpretation of two-dimensional mechanical prints encountered in the machining of parts. Applicable for machinist, maintenance personnel, and machine operators needing familiarization with the terminology, symbols, and practices used in the manufacturing environment. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable.

MACH 395ABC—ADVANCED MACH TOOL TECHNOLOGY LAB 1-3 UNITS

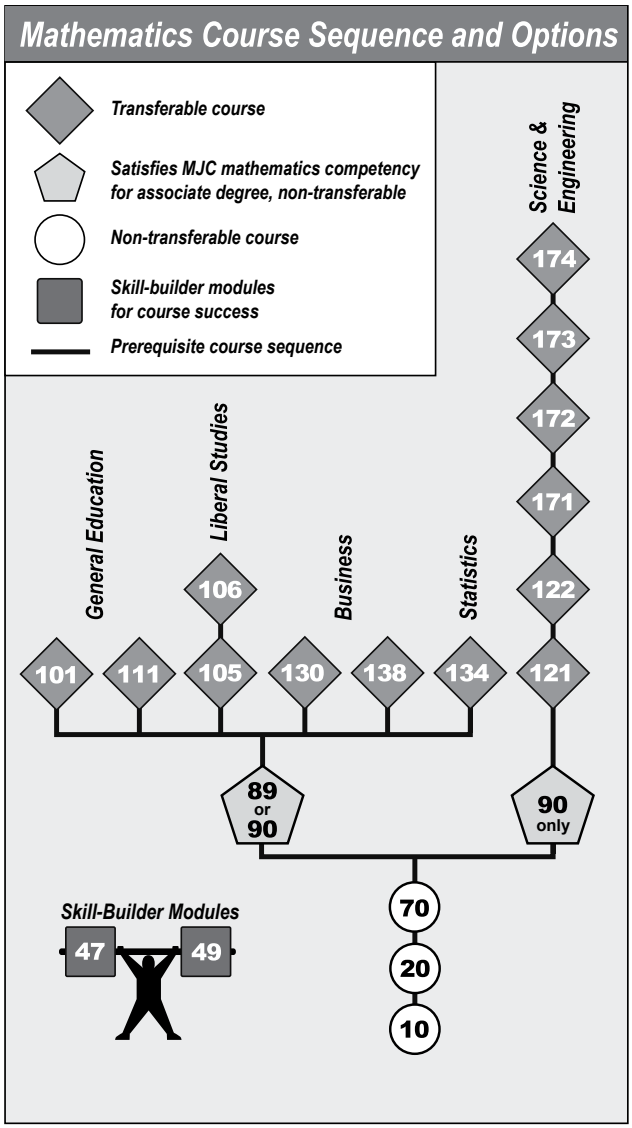
A=54 Lab Hours, B= 108 Lab Hours, C=162 Lab Hours

Formerly listed as MACH 395C

Prerequisite: Satisfactory completion of MACH 211 or MACH 301 or MACH 218 or MACH 219 or MACH 220 or MACH 222.

Provides access to a Machine Tool Technology laboratory setting for advanced students for the purpose of continued skills development applicable to production machining processes. (P/NP Only) Lab. Not repeatable.

Mathematics Courses (MATH)



MATH NON-TRANSFERABLE COURSES

MATH 10—INTRODUCTION TO MATHEMATICS **4 UNITS**

72 Lecture Hours

Recommended for success: Qualification by MJC assessment process.

Module 1: A review of the four arithmetic operations as they apply to whole numbers, common fractions, and decimal fractions. Module 2: A variety of selected applications from arithmetic, pre-algebra, and geometry. Lecture. (A-F or P/NP) Not repeatable. **Transfer**: (CC MATH 601)

MATH 20—PRE-ALGEBRA **5 UNITS**

90 Lecture Hours

Prerequisite: Qualification by MJC math assessment process or satisfactory completion of MATH 10.

Recommended for success: Placement into READ 82 or higher by MJC Assessment process.

Designed to help students prepare for algebra and applied math courses by reviewing fundamental operations of arithmetic and common geometric formulas, and introducing the algebraic concepts of simplifying expressions, polynomial arithmetic, and solving and graphing linear equations. Arithmetic reviewed includes integers, decimals, ratios, and percents. Lecture. (A-F or P/NP) Not repeatable. **Transfer**: (CC MATH 602)

MATH 47—SKILLS FOR SUCCESS IN NON-TRANSFER LEVEL COURSES 0.5 UNITS

27 Lab Hours

Formerly listed as MATH 47 - Skills for Success in Elementary Algebra

Designed to provide practice in basic mathematical skills needed for success in non-Transfer level math courses. Particularly useful for those who are weak in prerequisite skills or who have struggled in other non-Transfer level mathematics courses. NOTE: MATH 47 DOES NOT serve as a prerequisite to any mathematics course. Field trips are not required. (P/NP Only) Lab. Not repeatable.

MATH 49—SKILLS FOR SUCCESS IN TRANSFER LEVEL MATH COURSES 0.5 UNITS

27 Lab Hours

Formerly listed as: MATH 49: Skills for Success in Intermediate Algebra

Practice on mathematical skills needed for success in Transfer level mathematics courses. Intended for those who need prerequisite skills or who have struggled in intermediate algebra or precalculus courses. DOES NOT serve as a prerequisite to Transferable mathematics courses. (P/NP Only) Lab. Not repeatable.

MATH 70—ELEMENTARY ALGEBRA **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of MATH 20 or qualification by the MJC assessment process.

Equivalent to a first-year high school algebra course. Topics include: simplifying algebraic expressions, solving linear and quadratic equations, factoring, graphing lines and parabolas, solving systems of equations, rational expressions, and radicals, with application problems incorporated into each topic. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CC MATH 101)

MATH 89—INTERMEDIATE ALGEBRA ESSENTIALS **4 UNITS**

72 Lecture Hours

Prerequisite: Satisfactory completion of MATH 70 or qualification by the MJC assessment process.

Equivalent to second year high school algebra. Topics include linear, quadratic, exponential and logarithmic functions and equations; complex numbers; solving systems of equations; conic sections; sequences and series. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **General Education**: (MJC-GE: D2)

MATH 90—INTERMEDIATE ALGEBRA **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of MATH 70 or MATH 71 and MATH 72 or qualification by the MJC assessment process.

Equivalent to second year high school algebra. Topics include linear, quadratic, exponential and logarithmic functions and equations; complex numbers; solving systems of equations using substitution, matrices and determinants; conic sections; sequences, series and combinatorics. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CC MATH 104) **General Education**: (MJC-GE: D2)

MATH GENERAL EDUCATION/TRANSFER & LIBERAL STUDIES COURSES

MATH 101—MATHEMATICAL IDEAS AND APPLICATIONS **3 UNITS**

54 Lecture Hours

Prerequisite: Satisfactory completion of MATH 89 or qualification by the MJC assessment process or MATH 90 or qualification by the MJC assessment process.

A General Education course emphasizing the role of mathematics in civilization, the nature of mathematical thought, and applications of mathematics. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC MATH 6) **General Education**: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

MATH 105—STRUCTURE OF MATHEMATICS 1 **3 UNITS**

54 Lecture Hours

Prerequisite: Satisfactory completion of MATH 90 or MATH 89 or qualification by the MJC assessment process.

Structure of arithmetic for prospective elementary school teachers. The definitions, operations, and properties of sets, counting numbers, integers, rational and irrational numbers; numeration systems; number theory, logic. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC MATH 4) **General Education**: (MJC-GE: D2) (CSU-GE: B4)

MATH 106—STRUCTURE OF MATHEMATICS 2 **3 UNITS**

54 Lecture Hours

Prerequisite: Satisfactory completion of MATH 105.

Elementary probability, statistics and geometry for prospective elementary school teachers. Includes Euclidean geometry, measurement, and analytic geometry. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: D2) (CSU-GE: B4)

MATH 111—APPLIED COLLEGE ALGEBRA **3 UNITS**

54 Lecture Hours

Prerequisite: Satisfactory completion of MATH 89 or qualification by the MJC assessment process or MATH 90 or qualification by the MJC assessment process.

A College Algebra course that presents each topic to answer the question, "What is this used for?" Instruction begins with a real-world problem and develops the mathematical models and methods to solve it. Topics include: polynomial, rational, exponential, and logarithmic functions; theory of equations; systems of equations; matrix algebra; and analytic geometry. Designed specifically for students needing only a one-semester, non-precalculus College Algebra course for Transfer to a university. Not open to students who have received credit in Math 121. Will not serve as a prerequisite to Math 122 or Math 171. STUDENTS PREPARING TO TAKE CALCULUS MUST TAKE MATH 121 AND MATH 122. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

MATH PRE-CALCULUS COURSES

MATH 121—PRE-CALCULUS 1 **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process.

A one-semester College Algebra course or, together with Math 122, a two-semester Precalculus course sequence. Emphasis on algebra skills essential for success in calculus. Topics include: review of linear, quadratic, rational, radical, exponential, logarithmic equations and graphs; systems of equations and inequalities (linear and nonlinear); functions and graphs; synthetic division; complex roots of polynomials; the Fundamental Theorem of Algebra; applications of exponential and logarithmic equations; sequences and series; mathematical induction; combinatorics. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

MATH 122—PRE-CALCULUS 2 **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of MATH 121.

Together with MATH 121, a two-semester Precalculus course sequence. A comprehensive course in analytic geometry and trigonometry. Topics include: vectors, rotation of axes, conic sections, polar and parametric functions, and trigonometric functions & graphs with applications. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

MATH STATISTICS AND APPLICATIONS COURSES

MATH 130—FINITE MATHEMATICS **3 UNITS**

54 Lecture Hours

Prerequisite: Satisfactory completion of MATH 89 or qualification by the MJC assessment process or MATH 90 or qualification by the MJC assessment process.

Set theory, probability and counting techniques, Markov chains, matrices and linear systems, linear programming (Simplex Method), applications to business and behavioral and social sciences. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC MATH 12) **General Education**: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

MATH 134—ELEMENTARY STATISTICS **4 UNITS**

72 Lecture Hours

Prerequisite: Satisfactory completion of MATH 90 or MATH 89 or qualification by the MJC assessment process.

Recommended for Success: Before enrolling in this course, students are strongly advised to also enroll in Math 135-Problem Solving Skills and Technology for MATH 134.

Elements of descriptive and inferential statistics, including probability, discrete and continuous probability distributions, hypothesis testing, regression analysis, ANOVA, and nonparametric statistics. Field trips are not required. Not repeatable. (A-F or P/NP) **Transfer**: (CSU, UC) (CC MATH 2) **General Education**: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

MATH 135—PROBLEM SOLVING SKILLS AND TECHNOLOGY FOR MATH 134 **1 UNIT**

18.00 Lecture Hours

Corequisite: Concurrent enrollment in MATH 134.

Designed to supplement MATH 134 with additional assistance in developing problem-solving skills necessary for success. Emphasis is placed on research strategies, exploration of statistical theories, problem-solving strategies unique to statistical applications, and computer lab instruction and demonstration. Field trips are not required. Not repeatable. (P/NP Only) **Transfer**: (CSU)

MATH 138—CALCULUS FOR BUSINESS & SOCIAL SCIENCES **3 UNITS**

54 Lecture Hours

Formerly listed as: MATH 138: Calculus for Business &social Sciences

Prerequisite: Satisfactory completion of MATH 89 or qualification by the MJC assessment process or MATH 90 or qualification by the MJC assessment process.

Concepts of functions and limits; applied calculus emphasizing techniques of differentiation and integration with applications directed primarily to business and the social sciences; partial derivatives. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

MATH CALCULUS COURSES

MATH 171—CALCULUS: FIRST COURSE **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of MATH 121 and MATH 122 or qualification by the MJC assessment process.

Fundamental foundations of differential and integral calculus. Topics include: limits, continuity, differentiation, curve sketching, applications of differentiation, integration, the Fundamental Theorem of Calculus, and applications of integration. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC MATH 18A) (C-ID: MATH 210, C-ID: MATH 900S) **General Education**: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

MATH 172—CALCULUS: SECOND COURSE **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of MATH 171.

A continuation of Math 171. Topics include: techniques of integration, applications of integration, introductory differential equations, differentiation and integration of parametric and polar equations, and infinite sequences and series. Field trips are not required. (A-F or P/NP) Lecture. (CC MATH 18B) (C-ID: MATH 220, C-ID: MATH 900S) Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

MATH 173—CALCULUS: THIRD COURSE **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of MATH 172.

A continuation of MATH 172. The extension of calculus concepts to three dimensions and functions of multiple variables. Topics include: vectors and solids in 3-space, the calculus of vectors, partial differentiation, multiple integration, applications of partial differentiation and integration, and line and surface integrals. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC MATH 18C) **General Education**: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

MATH 174—INTRODUCTION TO DIFFERENTIAL EQUATIONS & LINEAR ALGEBRA **5 UNITS**

90 Lecture Hours

Formerly listed as: MATH 174: Introduction to Linear Algebra & Diff Equations

Prerequisite: Satisfactory completion of MATH 173.

Differential equation topics including solutions to first order equations, higher order linear equations, series solutions, systems of equations, and Laplace transforms. Linear algebra topics including linear equations, vector spaces, scalar products, linear transformations, determinants, and eigenvalues. Field trips are not required. (A-F or P/NP) Not repeatable. Lecture. **Transfer**: (CSU, UC) (C-ID: MATH 910S) **General Education**: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

Medical Assisting Courses (MDAST)

MDAST 320—INTRODUCTION TO MEDICAL ASSISTING **3 UNITS**

54 Lecture Hours

Formerly listed as: MDAST - 320: Intro. to Medical Assisting

Corequisite: Concurrent enrollment in MDAST 322 and MDAST 323.

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Medical Assisting Program.

Orientation to the medical office and the role of the medical assistant. Professional relations and communications, ethics, and legal responsibilities; history of medicine and community health care facilities. Field trips might be required.(A-F Only) Lecture. Not repeatable.

MDAST 321—MEDICAL TERMINOLOGY **3 UNITS**

54 Lecture Hours

Emphasizing logical and rational understanding of word parts. Covers medical terms organized according to body systems, including fundamental understanding of basic anatomy, function, diseases, and surgeries of each body system. (A-F Only) Lecture. Not repeatable. **Transfer**: (CC OFTEC 50)

MDAST 322—MEDICAL ASSISTING ADMINISTRATIVE PROCEDURES 3.5 UNITS

36 Lecture Hours, 81 Lab Hours

Formerly listed as: MDAST - 322: Medical Assisting Administrative

Corequisite: Concurrent enrollment in MDAST 320 and MDAST 323.

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Medical Assisting Program.

Medical Assisting Administrative procedures including financial record keeping, insurance claims, banking functions, payroll and medical records. Students receive training in completing the above procedures manually and by computer. Field trips might be required.(A-F Only) Lecture/Lab. Not repeatable.

MDAST 323—MEDICAL ASSISTING CLINICAL PROCEDURES 3 UNITS

36 Lecture Hours, 54 Lab Hours

Corequisite: Concurrent enrollment in MDAST 322 and MDAST 320.

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Medical Assisting Program.

Clinical medical assisting skills, which pertain to preparing the patient for examination and assisting patient and physician during patient examination and treatment. The assistant must anticipate the physician's needs as to the type of examination, the specific equipment needed, and the extent of assistance required by the patient. This requires judgment based on a reasonable understanding of physical examinations, the methods and equipment used, and the related role of the medical assistant. Materials Fee Required. (A-F Only) Lecture/Lab. Not repeatable.

MDAST 324—INTRODUCTION TO DISEASE AND PHARMACOLOGY 4 UNITS

63 Lecture Hours, 27 Lab Hours

Formerly listed as: MDAST - 324: Intro to Diseases/Pharmacology

Prerequisite: Satisfactory completion of MDAST 320 and MDAST 322 and MDAST 323.

Corequisite: Concurrent enrollment in MDAST 325 and MDAST 326. Medical Terminology related to the human body in health and disease.

Pathogenesis and discussion of representative diseases; signs and symptoms of many major diseases and basic drugs used in treatment. (A-F Only) Lecture/Lab. Not repeatable.

MDAST 325—MEDICAL ASSISTING LABORATORY PROCEDURES 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as: MDAST - 325: Lab Procedures

Prerequisite: Satisfactory completion of MDAST 320 and MDAST 322 and MDAST 323.

Corequisite: Concurrent enrollment in MDAST 324 and MDAST 326.

Introduction to laboratory procedures necessary to aid the physician. Includes patient preparation for diagnostic studies, purposes, techniques, and recording of procedures commonly performed. Field trips might be required.(A-F Only) Lecture/Lab. Not repeatable.

MDAST 326—MEDICAL ASSISTING PRACTICUM 7 UNITS

36 Lecture Hours, 270 Lab Hours

Formerly listed as: MDAST - 326: Externship

Prerequisite: Satisfactory completion of MDAST 320 and MDAST 322 and MDAST 323.

Corequisite: Concurrent enrollment in MDAST 324 and MDAST 325.

Practicum portion of the program consists of two 8-week rotations in which students apply knowledge in performing administrative and clinical procedures. Students also receive training in taking the national certification exam and seeking employment. (A-F Only) Lecture/Lab. Not repeatable.

Meteorology Courses (METEO)

METEO 161 INTRODUCTION TO METEOROLOGY 4 UNITS

54 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EASCI 161 and satisfactorily complete MATH 70.

Introduction to atmospheric structure, weather monitoring techniques, solar radiation, thermodynamics, air pressure, humidity, cloud formation, wind patterns, planetary circulation patterns, storms and severe weather (including thunderstorms, tornadoes, and hurricanes), and the causes and consequences of climate and climate change. Lab activities emphasize gathering and analysis of meteorological data (both archived and real-time) to understand and predict weather events. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

Microbiology Courses (MICRO)

MICRO 101—MICROBIOLOGY 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of CHEM 143 or CHEM 101.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BIO 111 or satisfactorily complete BIO 116 or satisfactorily complete BIO 101

Includes the study of microorganisms, microbial metabolism, genetics, and varieties; immunity, infections, and antimicrobials. Intended mainly for student entering the health professions. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC BIOL 65) **General Education**: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

MICRO 111—PLAGUES OF HUMANKIND 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

An overview of various diseases that have plagued humanity over history. Designed for non-majors with an interest in science and public health. Field trips might be required. Not repeatable. (A-F or P/NP) **Transfer**: (CSU) **General Education**: (MJC-GE: A)

Music Courses (MUSA, MUSC, MUSE, MUSI, MUSP, MUST)

MUSIC: APPLIED COURSES (MUSA)

See "Repeat Limitations on Music Courses." Students must meet performance and repertoire standards before proceeding to successive levels in the following classes.

MUSA 121—Keyboard Skills 1 **1 UNIT**

54 Lab Hours

Formerly listed as: MUSA - 121: Elementary Piano, MUSIC - 120: Elementary Piano

Essentials of music notation; fundamentals of rhythm, tone production and the coordinated use of both hands; introduction of scales and chords; methods of practice and memorization. Completion of MUSA 121, Elementary Piano is recommended for all general elementary teaching candidates. Electronic keyboard lab and acoustic upright piano practice rooms available. Field trips might be required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 31A) **Local Requirement**: (Activities)

MUSA 122—PIANO ENRICHMENT **1 UNIT**

54 Lab Hours

Formerly listed as: MUSIC - 121: Piano Enrichment

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 121.

Continued development of piano technique, understanding of rhythmic skills and basic music theory. Emphasis upon sight reading and ensemble playing. Electronic piano lab and practice rooms available. Field trips might be required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

MUSA 123—INTERMEDIATE PIANO **1 UNIT**

54 Lab Hours

Formerly listed as MUSIC 122

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 122.

Further study of piano technique, tone production, efficient use of physical self; detailed study diatonic scales and harmonic progressions; attention given to improving sight reading skills, learning process, musical interpretation of the score, memorization techniques and performance skills; introduction to intermediate level repertoire from various stylistic periods; participation in live performance demonstrations as well as live student recital at the end of term. Field trips might be required. Two completions allowed. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) (CC MUSIC 41A & 41B) **Local Requirement**: (Activities)

MUSA 124—APPLIED PIANO **1 UNIT**

54 Lab Hours

Formerly listed as: MUSA - 124: Advanced Piano, MUSIC - 123: Advanced Piano

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 123.

Limitations on Enrollment: Enrollment limited to students who pass an audition.

Intended for Music Majors only. Instruction in technical, stylistic, and aesthetic elements of piano performance. Detailed study of technique; study of advanced repertoire and literature from all stylistic periods, from Baroque to contemporary. Four completions allowed. Field trips might be required. (A-F Only) Lab. **Transfer**: (CSU, UC) (C-ID: MUS 160) **Local Requirement**: (Activities)

MUSA 135—ELEMENTARY HARPSICHORD **1 UNIT**

9 Lecture Hours, 27 Lab Hours

Formerly listed as MUSIC 181

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 121.

Introduction to the basic skills of harpsichord performance. Literature from the Renaissance, Baroque and Early Classical periods. Performance techniques will include figured bass, vocal and instrumental accompanying. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

MUSA 141—ELEMENTARY GUITAR **1 UNIT**

54 Lab Hours

Formerly listed as: MUSIC - 163: Elementary Guitar

Examination of the basic elements of classical guitar technique and repertoire. Technical works will emphasize posture, correct right- and left-hand technique, as well as treble clef note-reading in first position. The course will introduce sight-reading on easy melodies, as well as chord charts. Chord coverage will include: closed finger chords, opened finger chords, and bar chords. The student is responsible for providing a nylon-stringed classical guitar, a guitar tuner, and a foot-stool. All students will perform in a semi-formal performance at the end of the semester. Field trips are not required. (AF or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 49)**Local Requirement**: (Activities)

MUSA 142—GUITAR PERFORMANCE **1 UNIT**

18 Lecture Hours

Formerly listed as: MUSA 142: Guitar Enrichment, MUSIC - 164: Guitar Enrichment

Prerequisite: Satisfactory completion of MUSA 141.

Continuation of MUSA 141. Focus on group performances and an introduction to solo performance. Students will learn to follow notation up to the fifth position in solo and smaller ensembles. Intermediate techniques including tremolo, flamenco strumming, and harmonic playing. Technical exercises and techniques to develop finger independence. A classical, nylon-string guitar is strongly recommended for use in the course. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

MUSA 143—GUITAR ENRICHMENT **1 UNIT**

54 Lab Hours

Formerly listed as: MUSA - 143: Guitar Advancement, MUSIC - 174: Guitar Advancement

Prerequisite: Satisfactory completion of MUSA 141.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 142.

Improvement of guitarists accompaniment technique, analytical skills, and performance competence. Music education majors are strongly encouraged to enroll. Special attention

will be given to performance in solo and group settings. Students will be required to participate in a formal recital at the end of the term. A nylon-strung classical or flamenco guitar is required for the course. Field trips might be required. (A-F or P/ NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

MUSA 144 —INTERMEDIATE GUITAR **1 UNIT**

54 Lab Hours

Formerly listed as MUSIC 165

Prerequisite: Satisfactory completion of MUSA 141.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 142 or satisfactorily complete MUSA 143.

Further development of guitar performance skills and techniques. Particular attention will be given to technical exercises and the performance practices surrounding the classical and flamenco intermediate repertoire. Students will need a Nylon-strung classical guitar. Two public performances (mid-term and final) will be connected to this course. Field trips might be required.(A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

MUSA 145—APPLIED CLASSICAL GUITAR **1 UNIT**

18 Lecture Hours

Formerly listed as MUSIC 166

Corequisite: Concurrent enrollment required in or satisfactory completion of MUSA 144.

Designed for performance majors intending to Transfer to four-year institutions. The curricula will cover materials necessary to provide the appropriate skill level for upper division coursework at most universities. Students must perform a forty-five minute recital as a completion requirement for the course. A fifteen-minute jury may substitute for the recital requirement. Field trips might be required. Four completions allowed. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (CC MUSIC 50) (C-ID: MUS 180)**Local Requirement**:(Activities)

MUSA 151—ELEMENTARY VOICE 1 **1 UNIT**

54 Lab Hours

Formerly listed as MUSIC 131

Development of singing voice through consideration and application of the basic elements of tone production, i.e., breathing,resonance, diction posture; principles applied through group and individual vocal exercises and singing. This is the first of two preparatory courses for students who intend to take voice classes at the major level. Field trips might be required.(A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 36) **Local Requirement**: (Activities)

MUSA 152—ELEMENTARY VOICE 2 **1 UNIT**

54 Lab Hours

Formerly listed as MUSIC 132: Voice Enrichment

Recommended for Success: Before enrolling in this course, students are strongly advised to have previous vocal experience.

Further development of the singing voice through consideration and application of the basic elements of tone production, i.e., breathing, resonance, diction, posture; principles applied through group and individual vocal exercises and singing. Field trips might be required. Laboratory. Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 37)**Local Requirement**: (Activities)

MUSA 153—APPLIED VOCAL REPERTOIRE 1 **1 UNIT**

54 Lab Hours

Formerly listed as MUSIC 133 - Intermediate Voice

Concurrent Enrollment required in MUSA 155

Limitations on Enrollment: Enrollment limited to students who successfully pass an audition.

Study and performance of vocal solo literature with emphasis on building repertoire; development of style, and preparation for recitals. Recital and public performance participation required. This class is intended for voice majors. Necessary for transfer to a four year University as a music major. Two completions allowed. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) (CC MUSIC 39) (C-ID: MUS 160) **Local Requirement**: (Activities)

MUSA 154—APPLIED VOCAL REPERTOIRE 2 **1 UNIT**

18 Lecture Hours

Formerly listed as MUSIC 134

Prerequisite: Satisfactory completion of MUSA 153.

Corequisite: Concurrent enrollment required in MUSA 155.

Limitations on Enrollment: Enrollment limited to students who successfully pass an audition.

Continuation of MUSA 153 with greater emphasis on building repertoire, development of style, and preparation for Transfer auditions, auditions in general and recitals. Recital and public performance participation required. This class is intended for voice majors. This is a necessary class to transfer as a music major to a four year university. 9. Field trips might be required.(A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (CC MUSIC 56) (C-ID: MUS 160) Two completions allowed. **Local Requirement**: (Activities)

MUSA 155—VOCAL MASTER CLASS **1 UNIT**

54 Lab Hours

Formerly listed as MUSIC 139

Corequisite: Concurrent enrollment required in MUSA 153 or MUSA 154.

Development of vocal performance through the consideration and application of good vocal technique, performance practice and dramatic character development; principles applied through recital attendance and through solo, duet or ensemble performances in class and public recitals. Four completions allowed. Field trips might be required.(A-F or P/NP) Lab. **Transfer**: (CSU) **Local Requirement**: (Activities)

MUSA 161—ELEMENTARY STRINGS **1 UNIT**

54 Lab Hours

Formerly listed as: MUSIC - 127: Elementary Strings

Introduction to playing orchestral stringed instruments (violin, viola, cello, or bass). Designed for students with no previous instrumental music experience, students who wish to review fundamentals of string playing, or experienced instrumentalists who wish to learn a new instrument. Students must own or have access to a bowed string instrument. Public performance required. Field trips might be required.(A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

MUSA 162—INTERMEDIATE STRINGS **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 161.

Designed for the continuing string student at the intermediate level on Violin, Viola, Cello, or Bass. Students must own or have access to a bowed string instrument. Public performance required. Field trips might be required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU) (UC) **Local Requirement**: (Activities)

MUSA 163—APPLIED MUSIC (VIOLIN AND VIOLA) **1 UNIT**

18 Lecture Hours

Formerly listed as: MUSIC - 128: Applied Music (Violin and Viola)

Limitations on Enrollment: Enrollment limited to students who pass an audition.

Study and performance of violin or viola technique and literature. Public performance participation required. Four completions allowed. Field trips might be required.(A-F or P/ NP) Lecture. **Transfer**: (CSU, UC) (C-ID: MUS 160) **Local Requirement**: (Activities)

MUSA 164—Applied Music (Cello and Bass) **1 UNIT**

18 Lecture Hours

Formerly listed as: MUSIC - 129: Applied Music (Cello and Bass)

Limitations on Enrollment: Enrollment limited to students who pass an audition.

Study and performance of cello or bass technique and literature. Recital and public performance participation required. Four completions allowed. Field trips might be required.(A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (C-ID: MUS 160) **Local Requirement**: (Activities)

MUSA 173—APPLIED MUSIC (BRASS AND PERCUSSION) **1 UNIT**

18 Lecture Hours

Formerly listed as MUSA 173 and MUSIC 142

Limitations on Enrollment: Enrollment limited to students who pass audition.

Study and performance of brass and percussion solo literature, etudes, scales, and technical studies. Intended for music majors and/or advanced players. Recital and public performance participation required. Student must own or have access to an instrument appropriate for this course. Four completions allowed. Field trips might be required.(A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (C-ID: MUS 160) **Local Requirement**: (Activities)

MUSA 183—APPLIED MUSIC (WOODWINDS) **1 UNIT**

18 Lecture Hours

Formerly listed as MUSIC 144

Limitations on Enrollment: Enrollment limited to students who pass audition.

Study and performance of woodwind solo literature, etudes, scales, and technical studies. Intended for music majors and/or advanced players. Recital and public performance participation required. Student must own or have access to an instrument appropriate for this course. Field trips might be required. Four completions allowed. Field trips might be required.(A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (CC MUSIC 52) **Local Requirement**: (Activities)

MUSIC: COMMERCIAL COURSES (MUSC)

See "Repeat Limitations on Music Courses." Students must meet performance and repertoire standards before proceeding to successive levels in the following classes.

MUSC 111—RECORDING ARTS 1 **2 UNITS**

18 Lecture Hours, 54 Lab Hours

Formerly listed as: MUSIC - 172: Recording Arts 1

Introduction to the terminology and practices of the recording arts. Properties of sound, microphone placement, multi-track recording, mixing and mastering. Lab time will be required. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) **Local Requirement**: (Activities)

MUSC 112—RECORDING ARTS 2 **2 UNITS**

18 Lecture Hours, 54 Lab Hours

Formerly listed as: MUSIC - 178: Recording Arts 2

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSC 111.

Advanced topics in the recording studio relating to the digital recording process. In depth study of microphone choice and placement, microphone pre-amplifiers and analog processors, direct inputting, non-destructive digital editing, software plug-ins, automation techniques, mixing and mastering in the recording process. Lab time will be required. Two completions allowed. Field trips might be required. (A-F or P/NP) Lecture/ Lab. **Transfer**: (CSU) **Local Requirement**: (Activities)

MUSC 121—INTRODUCTION TO THE SYNTHESIZER AND MIDI **2 UNITS**

18 Lecture Hours, 54 Lab Hours

Formerly listed as MUSIC 170

Introduction to synthesizer and electronic keyboard sound design and operational procedures. MIDI (Musical Instrument Digital Interface) music studio techniques will be examined and utilized in an electronic music studio environment. Music acoustics, electronic music composition, synthesizer live performance, digital sampling, audio recording and music software programs will be explored. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) **Local Requirement**: (Activities)

MUSC 122—ELECTRONIC MUSIC 2 **2 UNITS**

18 Lecture Hours, 54 Lab Hours

Formerly listed as: MUSIC - 171: Electronic Music 2

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSC 121 or have previous synthesizer, tape recording and MIDI music studio experience.

Applied topics in electronic music composition, MIDI (Musical Instrument Digital Interface) music studio procedures, sampling, tape and digital recording. Performance in an electronic music concert is expected. Two completions allowed. Field trips are not required. (A-F or P/NP) Lecture/Lab. **Transfer**: (CSU) **Local Requirement**: (Activities)

MUSC 126—MUSIC PRODUCTION FOR MULTIMEDIA **2 UNITS**

18 Lecture Hours, 54 Lab Hours

Formerly listed as MUSIC 168

Designed for the student with an interest in music composing, music production, sound design and sound effects, the course will explore production of music for recording artists, music videos, demos, public service announcements, radio programs, graphics animations, commercials, jingles and TV/film scoring through the use of MIDI sequencing, digital multitrack recording and SMPTE synchronizing. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) **Local Requirement**: (Activities)

MUSIC: ENSEMBLE COURSES (MUSE)

See "Repeat Limitations on Music Courses." Students must meet performance and repertoire standards before proceeding to successive levels in the following classes.
See "Repeat Limitations on Music Courses." Students must meet performance and repertoire standards before proceeding to successive levels in the following classes.

MUSE 145—GUITAR ORCHESTRA **1 UNIT**

54 Lab Hours

Formerly listed as MUSIC 173

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete or be concurrently enrolled in MUSA 141.

Emphasis on guitar ensemble repertoire, preparation and performance. Required participation and performance in large and small ensembles. Students will be assigned to groups that will perform in mandatory graded concert performances throughout the course. Students should be prepared to perform in different venues and represent the college's guitar department. Four completions allowed. Field trips are required. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) (C-ID: MUS 180)**Local Requirement**: (Activities)

MUSE 151—MASTERWORKS CHORUS **1 UNIT**

54 Lab Hours

Formerly listed as MUSIC 154

Previous experience in a large choral ensemble.

A choral ensemble for all levels of singers. Study and performance of either one large scale work or program of shorter choral works, drawn from the standard repertoire of classical, folk, and popular music. Public performances required. Four completions allowed. Laboratory. **Transfer**: (CSU, UC) (CC MUSIC 66) **Local Requirement**: (Activities)

MUSE 155—CONCERT CHOIR **1 UNIT**

54 Lab Hours

Formerly listed as: MUSIC - 152: Concert Choir

Limitations on Enrollment: Enrollment limited to students who pass an audition.

A large choral ensemble for intermediate and advanced level singers. This course is for the study, rehearsal, and public performance of choral/vocal literature from a variety of historical periods, with an emphasis on the development of skills needed to perform within an ensemble. Different literature will be studied each semester. Four completions allowed, Field trips might be required. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) (C-ID: MUS 180) **Local Requirement**: (Activities)

MUSE 156—Chamber Choir **1 UNIT**

54 Lab Hours

Formerly listed as: MUSIC - 153: Chamber Choir

Limitations on Enrollment: Enrollment limited to students who pass an audition.

A small choral ensemble for advanced singers. Public performances of historically and culturally varied music. Four completions allowed. Field trips are required. (A-F or P/NP) Lab. Transfer: (CSU, UC) (C-ID: MJS 180) Local Requirement: (Activities)

MUSE 161—COMMUNITY ORCHESTRA **1 UNIT**

54 Lab Hours

Formerly listed as MUSIC 162

Recommended for Success: Before enrolling in this course, students are strongly advised to have experience playing a musical instrument.

Rehearsal and public performance of orchestral music written for a full symphony of strings, woodwinds, brass, and percussion. Repertoire will include works from many eras and a variety of cultures. Focus on developing ensemble balance and tone color, good intonation, rhythmic and stylistic integrity. Four completions allowed. Field trips might be required.(A-F or P/NP) Lab. **Transfer**: (CSU, UC) (CC MUSIC 76) **Local Requirement**: (Activities)

MUSE 165—STRING ORCHESTRA **1 UNIT**

54 Lab Hours

Formerly listed as MUSIC 150

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 163 or satisfactorily complete MUSA 164 OR

Limitations on Enrollment: Enrollment limited to students who perform satisfactorily in an audition, demonstrating ability to sight read music, play scales, and adjust intonation on a bowed spring instrument.

Rehearsal and public performance of orchestral music for strings (from all eras and a variety of cultures). Focus on developing bowing and left hand technique. Four completions allowed. Field trips might be required.(A-F or P/NP) Lab. **Transfer**: (CSU, UC) (C-ID: MUS 180) **Local Requirement**: (Activities)

MUSE 171—CONCERT BAND **1 UNIT**

54 Lab Hours

Formerly listed as MUSIC 161

Recommended for Success: Before enrolling in this course, students are strongly advised to have previous experience in instrumental music and have the ability to read music.

Student must own or have access to an appropriate instrument. Rehearsal and performance of original wind literature and transcriptions for concert band. Field trips might be required. Four completions allowed. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

MUSE 175—SYMPHONIC BAND **1 UNIT**

54 Lab Hours

Formerly listed as MUSIC 146

Recommended for Success: Before enrolling in this course, students are strongly advised to have previous experience playing in a band and have the ability to read music.

Rehearsal and performance of original wind band literature and transcriptions for band. Public performances are required. Field trips might be required. Student must own or have access to an appropriate instrument. Field trips might be required. Four completions allowed. (A-F or P/NP) Lab. (CID: MUS 180) **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

MUSE 176—CHAMBER ENSEMBLES (BAND INSTRUMENTS) 1 UNIT

18 Lecture Hours

Formerly listed as: MUSIC - 145: Chamber Ensembles (Band Instruments)

Recommended for Success: Before enrolling in this course, students are strongly advised to have at least 2 years of experience on their instrument, be able to read music notation and/or satisfactorily complete MUSE 175 and/or satisfactorily complete MUSE 171.

Rehearsal and performance of chamber ensemble literature. Ensembles may be made up of varying numbers of woodwind, brass, and percussion instruments. Recital and public performance participation required. Student must own or have access to an appropriate instrument. Four completions allowed. Field trips maybe required.(A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (CC MUSIC 78) **Local Requirement**: (Activities)

MUSE 181—JAZZ BAND 1 UNIT

54 Lab Hours

Formerly listed as MUSIC 149

Recommended for Success: Before enrolling in this course, students are strongly advised to have previous experience playing jazz music (one player per part). Student must own or have access to an appropriate instrument.

Study and performance of jazz literature in both traditional and contemporary styles. Public performances required. Four completions allowed. Field trips might be required. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) (C-ID: MUS 180) **Local Requirement**: (Activities)

MUSIC: ENSEMBLE NON-CREDIT COURSES (MUSE)

MUSE 851—MASTERWORKS CHORUS

54 Lab Hours

Formerly listed as OLDAD 854

Study and performance of either one large-scale work or program of shorter works. Public performance required. Not a graded course. Unlimited repeats. Laboratory.

MUSE 861—COMMUNITY ORCHESTRA

54 Lab Hours

Formerly listed as OLDAD 862

Study and performance of a combination of large-scale and shorter works for orchestra. Public performance Field trips might be required. Laboratory. Unlimited repeats. Not a graded course.

MUSE 871—CONCERT BAND

54 Lab Hours

Formerly listed as OLDAD 861

Prerequisite: Previous experience in instrumental music or satisfactory completion of MUSA 171 or 160.

Rehearsal and performance of original wind literature and transcriptions for concert band. Field trips might be required. Unlimited repeats. Laboratory. Not a graded course.

MUSIC: GENERAL COURSES (MUSG)

MUSG 101—MUSIC APPRECIATION 3 UNITS

54 Lecture Hours

Formerly listed as: MUSIC - 110: Music Appreciation

A survey course emphasizing the development of the listener's perception of the basic elements of music. Illustrations encompass various types of folk and traditional music, traditional classical music from a variety of historical periods, and musical material of a contemporary nature. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 2) (C-ID: MUS 100) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUSG 102—INTRODUCTION TO WORLD MUSIC 3 UNITS

54 Lecture Hours

Formerly listed as: MUSIC - 169: Introduction to World Music

Exploration of traditional/contemporary folk music of Africa, Asia, Latin America Europe and the U.S. from the perspective of music as culture. Investigations of the impact/influence of migratory patterns, social-political processes, and how ethnicities (groups that exist by language and customs) are reflected in music. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUSG 111—INTRODUCTION TO AMERICAN POPULAR MUSIC 3 UNITS

54 Lecture Hours

Formerly listed as MUSIC 118

Survey course emphasizing the listeners perception and understanding of the elements of American Popular Music. Illustrations will cover Folk, Jazz, Musical Theatre and Rock styles of popular music. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C1) (CSU-GE: C1) (IGETC: 3A)

MUSG 112—THE MUSIC OF THE BEATLES 3 UNITS

54 Lecture Hours

Formerly listed as MUSIC 190

A survey of the musical styles by the Beatles dating from 1958-1970. Emphasis will be placed on identifying the various musical periods, the stylistic practices in their compositions, their performances and interviews. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC)

MUSG 121—HISTORY OF WESTERN MUSIC 1 **3 UNITS**

54 Lecture Hours

Formerly listed as MUSIC 112

Survey of musical styles by master composers dating from the ancient period through the end of the baroque period (1750). Various historical periods, the stylistic practices in composition and performance, musical compositions of the most prominent composers from each historical period. Field trips might be required. Lecture. (A-F or P/NP) Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 10) **General Education**: (MJC-GE: C)(CSU-GE: C1) (IGETC: 3A)

MUSG 122—HISTORY OF WESTERN MUSIC 2 **3 UNITS**

54 Lecture Hours

Formerly listed as MUSIC 113

A general survey of the musical styles by master composers dating from the classical period (1750) to the present. Emphasis will be placed on identifying the various historical periods, the stylistic practices in composition and performance, and utilizing the musical compositions of the most prominent composers from each historical period. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 11) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUSIC: STAGE PRODUCTION COURSES (MUSP)

MUSP 151—MUSICAL THEATRE WORKSHOP **2 UNITS**

108 Lab Hours

Formerly listed as MUSIC 157

Recommended for Success: Before enrolling in this course, students are strongly advised to have previous vocal experience. Intended for those interested in singing and acting.

Study and performance of musical theatre. Public performance is required. Two completions allowed. Field trips might be required.(A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

MUSP 153—ADVANCED MUSICAL THEATRE WORKSHOP **2 UNITS**

108 Lab Hours

Formerly listed as MUSIC 158

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSP 151.

Intended for those interested in singing and acting. Study and performance of musical theatre. Public performance is required. Field trips might be required.(A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

MUSIC: THEORY COURSES (MUST)

MUST 101—MUSIC FUNDAMENTALS 1 **3 UNITS**

54 Lecture Hours

Formerly listed as: MUSIC 100: Music Fundamentals 1

Basic music theory concepts such as musical notation, rhythm, tonality, scales, intervals, key signatures, and chords. Basic aural skills concepts such as rhythmic drills and sight-singing using Solfege. Designed to meet the needs of the music majors with little to no music theory background, as well as non-music majors and prospective elementary school teachers. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: MUS 110) **General Education**: (MJC-GE: C)

MUST 121—MUSIC THEORY 1 **3 UNITS**

54 Lecture Hours

Formerly listed as: MUSIC 102: Music Theory 1

Prerequisite: Satisfactory completion of MUST 101.

Corequisite: Concurrent enrollment in MUST 131

Brief review of primary Music Fundamentals topics; Tonality; Introduction to common harmonic practice through exercises in part writing and figured bass, simple guided composition, and analysis. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 20A) (C-ID: MUS 120) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUST 122—MUSIC THEORY 2 **3 UNITS**

54 Lecture Hours

Formerly listed as: MUSIC 103: Music Theory 2

Prerequisite: Satisfactory completion of MUST 121.

Corequisite: Concurrent enrollment in MUST 132.

Continuing development of technique in common harmonic practice through Roman numeral analysis, partwriting, figured bass, and guided composition exercises. Introduction to Tonicization and secondary dominants; introduction to phrase and period structure. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 20B) (C-ID: MUS 130) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUST 123—MUSIC THEORY 3 **3 UNITS**

54 Lecture Hours

Formerly listed as: MUSIC 106: Music Theory 3

Prerequisite: Satisfactory completion of MUST 122.

Recommended for Success: Before enrolling in this course, students are strongly advised to be concurrently enrolled in MUST 133.

This course incorporates concepts from Music Theory 2. In addition, the course continues the development of writing and analytical techniques of tonal music through writing in 4 parts, figured bass, Roman numeral analysis, and guided composition exercises. Introduction to chromatic harmony; modulation; modal mixture; Binary and Ternary forms; Sonata Form Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 21A) (C-ID: MUS 140) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUST 124—MUSIC THEORY 4 **3 UNITS**

54 Lecture Hours

Formerly listed as: MUSIC 107: Music Theory 4

Prerequisite: Satisfactory completion of MUST 123

This course incorporates concepts from Music Theory 3. In addition, the course continues the development of analytical techniques, guided composition and figured

bass realization in 4 parts; continued overview of larger forms such as Sonata and Rondo; study of harmonic procedures at the edge of tonality; chromatic modulation; reinterpretation of diminished 7th chords; chromatic sequences; introduction to 20th Century compositional techniques and styles such as Symbolism / Impressionism, serialism and polytonalism. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 21B) (C-ID: MUS 150) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUST 131—AURAL SKILLS 1 **1 UNIT**

54 Lab Hours

Formerly listed as: MUSIC - 104: Aural Skills 1

Corequisite: Concurrent enrollment in or satisfactory completion of MUST 121.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 101 and concurrently enroll in a lab experience such as MUST 130, Practica Musica.

Supplements the study of written music theory (MUST 121) by practical application of singing, ear-training, and performance techniques; integration of the two basic musical elements pitch and rhythm through weekly singing of diatonic melodies from textbook using movable Do Solfege; analysis, rhythmic and melodic dictation; use of computer assisted instruction in Practica Musica, lab portion of the class (MUST 130). Field trips might be required. (A-F Only) Lab. Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 4A) (C-ID: MUS 125) **Local Requirement**: (Activities)

MUST 132—AURAL SKILLS 2 **1 UNIT**

54 Lab Hours

Formerly listed as: MUSIC - 105: Aural Skills 2

Prerequisite: Satisfactory completion of MUST 131.

Corequisite: Concurrent enrollment in or satisfactory completion of MUST 122.

Sequential continuation of MUST 131, Aural Skills 1; supplements the study of written music theory (MUST 122) by practical application of singing, ear-training, and performance techniques; further development of musicianship skills through weekly singing of diatonic melodies from textbook using movable Do Solfege; analysis, rhythmic and melodic dictation; use of computer assisted instruction in Practica Musica, lab portion of the class (MUST 130). Field trips might be required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 4B) (C-ID: MUS 135) **Local Requirement**: (Activities)

MUST 133—AURAL SKILLS 3 **1 UNIT**

54 Lab Hours

Formerly listed as: MUSIC - 108: Aural Skills 3

Prerequisite: Satisfactory completion of MUST 132.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 123.

Sequential continuation of MUST 132, Aural Skills 2; supplements the study of written music theory (MUST 123) by practical application of singing, ear-training, and performance techniques; further development of musicianship skills through weekly singing of diatonic as well as chromatic melodies from textbook using movable Do Solfege and conducting; basic keyboard skills to harmonize weekly melodies and achieve correct intonation; analysis, rhythmic, melodic and harmonic dictation; use of computer assisted instruction in Practica Musica, lab portion of the class (MUST 130). Field trips might be required. (A-F Only) Lab. Not repeatable. **Transfer**: (CSU, UC) (CID:MUS 145) (CC MUSIC 5A) **Local Requirement**: (Activities)

MUST 134—AURAL SKILLS 4 **1 UNIT**

54 Lab Hours

Formerly listed as: MUSIC - 109: Aural Skills 4

Prerequisite: Satisfactory completion of MUST 133.

Corequisite: Concurrent enrollment in or satisfactory completion of MUST 124.

Sequential continuation of MUST 133, Aural Skills 3; supplements the study of written music theory (MUST 124) by practical application of sight singing, ear training, analysis and dictation; further development of musicianship skills through weekly singing of chromatic and atonal melodies with conducting; further development of keyboard skills to harmonize weekly melodies. Field trips might be required. (A-F Only) Lab. Not repeatable. **Transfer**: (CSU, UC) (CC MUSIC 5B) (CID: MUS 155) **Local Requirement**: (Activities)

MUST 141—MUSICIANSHIP AND GUIDED LISTENING 1 **1 UNIT**

18 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 101.

Musicianship and Guided Listening is a series of 4 sequential courses designed to complement Music Theory and Aural Skills classes. Development of aural and rhythmic skills by means of computer assisted participation in the music lab. Exposure to landmark works from the standard western art music repertoire by means of guided listening. Refinement of listening skills; attainment and development of proper terminology to describe musical events and parameters. Field trips might be required. (P/NP Only) Lecture. Not repeatable. **Transfer**: (CSU) **Local Requirement**: (Activities)

MUST 142—MUSICIANSHIP AND GUIDED LISTENING 2 **1 UNIT**

18 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 101.

Musicianship and Guided Listening is a series of 4 sequential courses designed to complement Music Theory and Aural Skills classes. Development of aural and rhythmic skills by means of computer assisted participation in the music lab. Exposure to landmark works from the standard western art music repertoire by means of guided listening. Refinement of listening skills; attainment and development of proper terminology to describe musical events and parameters. Field trips might be required. (P/NP Only) Lecture. Not repeatable. **Transfer**: (CSU) **Local Requirement**: (Activities)

MUST 143—MUSICIANSHIP AND GUIDED LISTENING 3 **1 UNIT**

18 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 101.

Musicianship and Guided Listening is a series of 4 sequential courses designed to complement Music Theory and Aural Skills classes. Development of aural and rhythmic skills by means of computer assisted participation in the music lab. Exposure to landmark works from the standard western art music repertoire by means of guided listening. Refinement of listening skills; attainment and development of proper terminology to describe musical events and parameters. Field trips might be required. (P/NP Only) Lecture. Not repeatable. **Transfer**: (CSU) **Local Requirement**: (Activities)

MUST 144—MUSICIANSHIP AND GUIDED LISTENING 4 **1 UNIT**

18 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 101.

Musicianship and Guided Listening is a series of 4 sequential courses designed to complement Music Theory and Aural Skills classes. Development of aural and rhythmic skills by means of computer assisted participation in the music lab. Exposure to landmark works from the standard western art music repertoire by means of guided listening. Refinement of listening skills; attainment and development of proper terminology to describe musical events and parameters. Field trips might be required. (P/NP Only) Lecture. Not repeatable. **Transfer**: (CSU) **Local Requirement**: (Activities)

Natural Resources Courses (NR)

In this program the student will develop skills and knowledge in animal/plant science and I.D., mechanics, communications, public relations, and computations specific to become a park ranger maintenance person, or private entrepreneur in allied jobs including game farm worker. This program will also prepare the student for Transfer to a state university or university program when the General Education requirements are completed. Contact the division office in the Agriculture Building for advising assistance.

NR 200—SOILS **3 UNITS**

54 Lecture Hours, 54 Lab Hours

Study of soil derivation, classification and characteristics as related to natural and human systems. Soil as a natural system including chemistry, ecology and geology. Soil use and management including erosion, moisture retention, structure, cultivation and organic matter. Special emphasis placed on the relationship between natural and agronomic soil systems. Laboratory topics include soil type, classification, soil chemistry, water and nutrient management and soil microbiology. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C) (CID AG-AP 128L)

NR 222—NATIVE TREE AND SHRUB IDENTIFICATION **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Formerly listed as Native Plants Identification

The study of botanical characteristics, taxonomy, physiology, and community relationships of the major trees and shrubs in California and the Western United States. Includes discussion of commercial uses and geographic ranges of native plants common to the region. Field trips outside of regular class Hours. Field trips required. Lecture/Lab. (A-F Only) Not repeatable. **Transfer**: (CSU)

Nurse Assistant and Associate Degree in Nursing Courses (NURSE)

NURSE 52—NURSE ASSISTANT **5 UNITS**

Formerly listed as: NURSE - 40: Nurse Assistant

54 Lecture Hours, 108 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to obtain a GED or High School diploma.

Limitations on Enrollment: Enrollment limited to students with no prior felony convictions.

Preparation for employment as a nurse assistant in a skilled nursing facility. Upon satisfactory completion of the course, the student is eligible to take the state examination for certification as a Certified Nurse Assistant (CNA). Based on the Model Curriculum for Nurse Assistant Training and Assessment Program following Department of Health Services Guidelines. Organized in sixteen modules with content ranging from role and responsibilities of the CNA to death and dying. Additional costs for students include purchase of appropriate uniform for the clinical site, books, and application fees for the state certification examination. Field trips are not required. Not repeatable. (A-F Only) Lec/Lab.

NURSE 53—CERTIFIED HOME HEALTH AIDE **2 UNITS**

27 Lecture Hours, 27 Lab Hours

Theory and laboratory experiences required for state-certified nursing assistants to become eligible for home health aide certification. Content includes: orientation to home health care, personal care of clients including medical and social needs; nutrition, safety and cleanliness in the home. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable.

NURSE 115—INTRODUCTION FOR NURSING MAJORS **1 UNITS**

18 Lecture Hours

Formerly listed as NURSE 115 - Guidance for Nursing Majors

Acquaints students with the academic requirements and curriculum for the Associate Degree Nursing program. Students gain insight into the role and function of the nurse. Students analyze their educational needs and goals and choose alternatives to enhance success through nursing education. Students will understand the curriculum requirements that pertain to them and begin to formulate an educational plan for an Associate of Science Degree in Nursing (ADN). The role of attitudes, skills and knowledge (ASK) will be addressed. Important aspects of nursing as an occupational choice will be covered along with information regarding the nursing profession. Field trips are not required. Not repeatable. (P/NP Only) Lecture. **Transfer**: (CSU)

NURSE 259—LVN TRANSITION: ROLE CHANGE PREPARATION **2 UNITS**

27 Lecture Hours, 27 Lab Hours

Formerly listed as NURSE 259 - LVN Transition: Preparing for a Role Change

Limitations on Enrollment: Enrollment limited to students who are Licensed Vocational Nurses/Licensed Practical Nurses with an active license and IV certification and a score of 62 or greater on the Test of Essential Academic Skills (TEAS).

Prerequisite: Satisfactory completion of ANAT 125 and MICRO 101 and PHYSO 101 and ENGL 101.

The focus of this course is on nursing knowledge and skills that the LVN student needs in order to provide the basis for transition of information and skills required of the registered nurse. Content includes nursing process as it applies to the adaptation theory of nursing practice, LVN role transition to registered nurse, assessment of physical and psychosocial adaptations, pharmacology, and math for medication calculation. Emphasis is on critical thinking in the clinical setting as it applies to nursing practice. Materials fee required. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

NURSE 270—NURSING PROCESS: PHARMACOLOGY 2 UNITS

Formerly listed as: NURSE 260: Nursing Process: Pharmacology

36 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Associate Degree Nursing Program.

Introduction to concepts of pharmacology, including pharmacokinetics, pharmaceutical systems of measurements & calculations, drug classifications, and nursing responsibilities in medication administration. Field trips are not required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

NURSE 271—NURSING PROCESS: FUNDAMENTALS 6.50 UNITS

54 Lecture Hours, 189 Lab Hours

Formerly listed as: NURSE 261: Nursing Process: Fundamentals

Corequisite: Concurrent enrollment in NURSK 800.

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Associate Degree Nursing Program.

Applies fundamental concepts and principles of the nursing process to the care and needs of patients within the acute care setting. The primary focus of the course is on assessment and care of patients experiencing alterations in basic health needs. Students practice basic clinical skills in a simulated lab setting prior to beginning care in the acute care facility. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

NURSE 272—NURSING PROCESS: GERIATRIC NURSING 1 UNIT

9 Lecture Hours, 27 Lab Hours

Limitations on Enrollment: Enrollment limited to students who are accepted into the Associate Degree Nursing program.

The focus of this course is on nursing knowledge and skills in order to provide nursing care for the geriatric population. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

NURSE 273—NURSING PROCESS: MATERNAL-CHILD NURSING 6.50 UNITS

54 Lecture Hours, 189 Lab Hours

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Associate Degree Nursing program.

Applies basic principles and concepts of the nursing process to meet the needs of the childbearing woman, childbearing family, and the pediatric patient. Family-centered care in the hospital and out-patient settings, along with health maintenance, prevention of illness, and patient/family teaching will be emphasized. Skills included in this course include venipuncture, intravenous fluid administration, intravenous medication administration, and enteral nutrition. Materials fee required. Materials fee required. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

NURSE 274—NURSING PROCESS: MENTAL HEALTH 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as: NURSE - 266: Nursing Process: Mental Health

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Associate Degree Nursing Program.

Applies the principles and concepts of the nursing process to meet the need of clients with psychiatric disorders across the life span. Mental health maintenance, prevention of illness, patient/family teaching, and therapeutic relationships will be emphasized. Students will be assigned to an acute psychiatric setting and tertiary areas that support and provide community mental health care services. Field trips might be required. (A-F or P/NP) Not repeatable. Lec/Lab. **Transfer**: (CSU)

NURSE 275—NURSING PROCESS: MEDICAL-SURGICAL 7 UNITS

63 Lecture Hours, 189 Lab Hours

Formerly listed as: NURSE - 265: Nursing Process: Medical-Surgical

Corequisite: Concurrent enrollment in NURSK 800.

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Associate Degree Nursing Program.

This course applies the principles of the nursing process to the care and adaptation of adult patients with disorders of the respiratory, cardiovascular, hematologic, and immune systems, as well as principles of oncologic nursing. The leadership role of the nurse as manager of care and member of the profession is integrated into clinical expectations and experiences. Clinical applications of theory include case studies, evidence-based practice, specialized assessments, and complex skills. The principles of Quality and Safety Education in Nursing (QSEN) and the Roy Adaptation Model are integral to this course. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

NURSE 278—NURSING PROCESS: ADVANCED MEDICAL-SURGICAL 10 UNITS

72 Lecture Hours, 324 Lab Hours

Corequisite: Concurrent enrollment in NURSK 800.

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Associate Degree Nursing Program.

This course includes advances in medical-surgical concepts and principles in the nursing process. It promotes role development in the care and management of patient groups in the acute care setting. The capstone component of the nursing program takes place in the last portion of the course. It encompasses all the clinical, technical, and critical inking skills learned in the program emphasizing leadership in the management of patient care. Students complete precepting hours working directly with a registered nurse preceptor in the acute care facility. Materials fee required. Field trips are not required. Not repeatable. (A-F Only) Lecture/Lab. **Transfer**: (CSU)

Nursing Skills Courses (NURSK)

NON-CREDIT COURSES

NURSK 800—NURSING SKILLS DEVELOPMENT

30 Lab Hours

Corequisite: Concurrent enrollment in NURSE 271 or NURSE 272 or NURSE 273 or NURSE 274 or NURSE 275 or NURSE 259 or NURSE 52 or NURWE 361 or NURSE 278 or NURWE 362.

Provides simulated clinical experiences in a supervised laboratory setting for students who must use the Allied Health skills laboratory to achieve the objectives of a course in which they are enrolled. (Non-Graded course) Lab. Unlimited repeats.

Nursing Work Experience Courses (NURWE)

NURWE 361—WORK EXPERIENCE-NURSING A **1 UNIT**

54 Lab Hours

Formerly listed as: NURWE - 361: Work Experience-Nursing
Prerequisite: Satisfactory completion of NURSE 270 and NURSE 271.

Corequisite: Concurrent enrollment in NURSE 272 or NURSE 273 or NURSE 274 or NURSE 275 or NURSE 278.

Provides the student enrolled in the ADN program an opportunity to obtain nursing experience in a structured clinical work/study community service program in participating clinical agencies. Students gain additional practice in nursing by applying previously learned knowledge and skills. Orientation: 1 hour arranged. 75 hours compensated related work experience per semester equals 1 unit or 60 hours uncompensated related work experience. Field trips are not required. (P/NP Only). Lab. Not repeatable.

NURWE 362—WORK EXPERIENCE-NURSING B **2 UNITS**

108 Lab Hours

Formerly listed as: NURWE - 362: Work Experience-Nursing

Prerequisite: Satisfactory completion of NURSE 270 and NURSE 271.

Corequisite: Concurrent enrollment in NURSE 272 or NURSE 273 or NURSE 274 or NURSE 275 or NURSE 278.

Provides the student enrolled in the ADN program an opportunity to obtain additional nursing experience in a structured clinical work/study community service program in a participating clinical agency. Students gain additional practice in nursing by applying previously learned knowledge and skills. Orientation: 1 hour arranged. 150 hours compensated related work experience per semester equals 2 units or 120 hours uncompensated related work experience per semester equals 2 units. Field trips are not required. (P/NP Only) Lab. Not repeatable.

Office Administration Courses (OFADM)

OFADM 201—INTERMEDIATE KEYBOARDING 1 **1 UNIT**

18 Lecture Hours

Formerly listed as: OFADM 201: Intermediate Keyboarding

Recommended for Success: Before enrolling in this course, students are strongly advised to complete at least one semester of keyboarding and type a minimum of 45 gross words per minute on a five-minute timing.

First of three modules in OFADM 203. Further development of keyboarding with an emphasis on speed and accuracy; practice and drill on production keyboarding; drill and practice on formatting techniques and procedures for setting up business letters, academic and business reports, tables, business forms, including interoffice memoranda, resumes, minutes, and agendas. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

OFADM 202—INTERMEDIATE KEYBOARDING 2 **2 UNITS**

36 Lecture Hours

Formerly listed as: OFADM 202: Intermediate Keyboarding

Recommended for Success: Before enrolling in this course, students are strongly advised to complete at least one semester of keyboarding and type a minimum of 45 gross words per minute on a five-minute timing.

First two modules of OFADM 203. Further development of keyboarding with an emphasis on speed and accuracy; practice and drill on production keyboarding; drill and practice on formatting techniques and procedures for setting up business letters, academic and business reports, formal reports and all components, tables, business forms, including interoffice memoranda, resumes, minutes, and agendas. Individualized instruction. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

OFADM 203—INTERMEDIATE KEYBOARDING 3 **3 UNITS**

54 Lecture Hours

Formerly listed as: OFADM 203: Intermediate Keyboarding

Recommended for Success: Before enrolling in this course, students are strongly advised to possess at least one semester of keyboarding and type a minimum of 45 gross words per minute on a five-minute test.

Further development of keyboarding with an emphasis on speed and accuracy; practice and drill on production keyboarding; drill and practice on formatting techniques and procedures for setting up business letters, academic and business reports, formal reports and all components, tables, business forms, including interoffice memoranda, resumes, minutes, and agendas. Also, the design and creation of effective office forms and publications, such as letterheads, note pads, cover pages, announcements, flyers, and newsletters. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

OFADM 231—INTERMEDIATE WORD PROCESSING **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Also offered as: CSCI 224 (CMPSC 231): Intermediate Word Processing

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 203 and/or satisfactorily complete OFADM 330.

Intermediate word processing features such as mail merge, styles, graphics, tab, and sorts. Features will be applied in creating business documents. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

OFADM 232— ADVANCED WORD PROCESSING AND DESKTOP PUBLISHING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as: OFADM 232: Advanced Word Processing and Desktop

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CSCI 224 or satisfactorily complete OFADM 231 or have strong prior knowledge of word processing software.

Application of advanced word processing techniques and procedures including those features relating to desktop publishing. For students who are already knowledgeable in word processing software. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

OFADM 256—INTRODUCTION TO WORD PROCESSING 1 UNIT

Formerly listed as: OFADM - 356: Introduction to Word Processing

9 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 301 and/or have the ability to keyboard by touch.

Beginning course in the use of word processing software. Features of the software will be explained and demonstrated in a hands-on learning environment. Field trips are not required. Not repeatable. (A-F Only) Lec/Lab. **Transfer**: (CSU)

OFADM 259—INTRODUCTION TO SPREADSHEET SOFTWARE 1 UNIT

Formerly listed as: OFADM - 359: Introduction to Spreadsheet Software

9 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 353.

Beginning course in the use of spreadsheet software. Features of software will be explained and demonstrated in a hands-on learning environment. Field trips are not required. Not repeatable. (A-F Only) Lec/Lab. **Transfer**: (CSU)

OFADM 261—INTRODUCTION TO DATABASES 1 UNIT

Formerly listed as: OFADM - 361: Introduction to Databases

9 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 353 and satisfactorily complete OFADM 256 and/or satisfactorily complete OFADM 259.

A beginning course using features of database software. Course is designed to enable students to learn and apply the features of database software to organize information and to work with stored information. Field trips are not required. Not repeatable. (A-F Only) Lec/Lab. **Transfer**: (CSU)

OFADM 262—INTRODUCTION TO BUSINESS PRESENTATION SOFTWARE 1 UNIT

Formerly listed as: OFADM - 362: Intro to Business Presentation Software

9 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to demonstrate basic knowledge of computer use and have the ability to keyboard by touch.

A beginning course using computer software to design slides, outlines, note pages, and audience handouts for business presentations. Field trips are not required. Not repeatable. (A-F Only) Lec/Lab. **Transfer**: (CSU)

OFADM 301—BEGINNING KEYBOARDING 1.5 UNITS

9 Lecture Hours, 54 Lab Hours

Development of basic alpha/numeric keyboarding skills needed for the keyboard by touch. Drills to develop speed and accuracy on straight copy. Designed for students with no previous keyboarding/typewriting experience. (A-F Only) Lecture/Lab. Not repeatable.

OFADM 302—BEGINNING DOCUMENT PROCESSING 1.5 UNITS

9 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 301 or have ability to keyboard and type a minimum of 35 gross words per minute on a three-minute timing.

Further development of speed and accuracy on the alpha/numeric keyboard. Instruction in opening, saving, naming, printing documents; deletion and addition of text; margin/ tab settings; spacing techniques; text editing techniques; vertical/ horizontal centering; basic business letter, memo, and report formats. (A-F Only) Lecture/Lab. Not repeatable.

OFADM 303—KEYBOARDING FOR SPEED AND ACCURACY 0.5 UNITS

27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 301 or possess the ability to keyboard by touch at 20 gross words per minute.

Keyboarding course designed to diagnose a student's current keyboarding skills needs, prescribe appropriate practice materials, measure skill development, improve speed and accuracy, and continually evaluate the skill building process. (A-F Only) Lab. Not repeatable.

OFADM 304—PROFESSIONAL ENGLISH FOR BUSINESS 3 UNITS

54 Lecture Hours

Review of the mechanics of correct English usage as applied in the business environment. Emphasis is on sentence structure, word usage, punctuation, spelling, business vocabulary, dictionary usage, grammar review, and proofreading. Heavy emphasis is placed on the use of various business documents throughout the course for students to apply their writing skills. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CC OFTEC 130)

OFADM 305—RECORDS MANAGEMENT 3 UNITS

45 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 353 and have ENGL 50 eligibility.

Filing rules and their application to alphabetic, numeric, geographic, and subject systems; establishing manual and computer filing systems; records control, retention, Transfer, equipment, and supplies; micrographics; using the computer to store, organize, maintain, and retrieve information. Field trips might be required.(A-F or P/NP) Lecture/ Lab. Not repeatable.

OFADM 306—KEYBOARDING FOR ACCURACY 0.5 UNITS

27 Lab Hours

Prerequisite: Satisfactory completion of OFADM 303.

Keyboarding course designed to develop a student's current keyboarding skill, prescribe appropriate practice materials, measure skill development, improve accuracy, and continually evaluate the skill building process. Field trips are not required. (A-F Only) Lab. Not repeatable.

OFADM 307—KEYBOARDING FOR SPEED 0.5 UNITS

27 Lab Hours

Prerequisite: Satisfactory completion of OFADM 303.

Keyboarding course designed to develop a student's current keyboarding skill, prescribe appropriate practice materials, measure skill development, improve speed, and continually evaluate the skill building process. Field trips are not required. (A-F Only) Lab. Not repeatable.

OFADM 311—BUSINESS PROOFREADING AND EDITING 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to possess keyboarding skills to keyboard assignments.

Development of skills in transcribing notes including mastery of problems in spelling, word usage, punctuation, vocabulary, grammatical construction, capitalization, word division, proofreading, and use of numbers. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable.

OFADM 313—OFFICE SKILLS 3 UNITS

54 Lecture Hours

A study of various positions available in an office. Emphasis on location, skills, salary, benefits, and retirement packages of office positions. Covers entry-level skills and experiences necessary for beginning office positions, including career planning, telephone, and time management skills. Recommended as a first semester course for students pursuing an Office Administration or Clerical certificate or degree. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable.

OFADM 314—OFFICE PROCEDURES & TECHNOLOGIES 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 202 and satisfactorily complete OFADM 262 and satisfactorily complete OFADM 231 or have prior knowledge of word processing software.

Study of attributes and skills needed to work in an office. Explores duties of administrative assistants. Topics include workplace environment, workforce behaviors, telecommunications, reprographics, oral and written communications, mailing and shipping, and record keeping. (Course only offered during fall semester.) Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CC OFTEC 131)

OFADM 315—TODAY'S OFFICE 2 UNITS

108 Lab Hours

Prerequisite: Satisfactory completion of OFADM 202 and OFADM 314.

Provides a simulated office environment to give students the experience that is often necessary in obtaining and keeping an office position. Students will be "hired" as an employee within the simulated office with the availability of Transferring to other positions later in the course. Emphasis on application of skills and knowledge necessary to be an effective employee. Upon mastery of necessary skills, students may be placed as interns in offices to gain additional experience. The course should be taken in the student's last semester before graduation or certificate completion. (A-F Only) Lab. Not repeatable.

OFADM 320—TELEPHONE TECHNIQUES 1 UNIT

18 Lecture Hours

Development of effective use of the telephone. Scenarios include appropriate greetings, placing callers on hold, dealing with difficult callers, and communication on the telephone. Telephone equipment and services are also covered. . (A-F or P/NP) Lecture. Not repeatable.

OFADM 328—MACHINE TRANSCRIPTION 1 1 UNIT

9 Lecture Hours, 27 Lab Hours

Formerly listed as: OFADM - 328A: Machine Transcription

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 311 or satisfactorily complete OFADM 304 and have the ability to keyboard 40 gross words per minute on a three minute timing.

Instruction and practice in the use of software designed to assist in the transcription of audio recordings. Individualized instruction in the keyboarding of general business documents including letters, memos, press releases, and reports. (A-F Only). Lecture/Lab. Not repeatable.

OFADM 329—MACHINE TRANSCRIPTION 2 2 UNITS

18 Lecture Hours, 54 Lab Hours

Formerly listed as: OFADM - 328B: Machine Transcription

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 311 or satisfactorily complete OFADM 304 and have the ability to keyboard 40 gross words per minute on a three minute timing.

Instruction and practice in the use of software designed to assist in the transcription of audio recordings. Individualized instruction in the keyboarding of general business documents including letters, memos, press releases, and reports. (A-F Only) Lecture/Lab. Not repeatable.

OFADM 330—BEGINNING WORD PROCESSING 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 301.

Introduction to the use and capabilities of word processing software with hands-on experience in creating, revising, and printing documents. Course designed for initial exposure to word processing. Students who have completed OFADM 356 should enroll in OFADM 231. (A-F or P/NP) Lecture/Lab. Not repeatable.

OFADM 353—INTRODUCTION TO COMPUTERS AND WINDOWS 1 UNIT

9 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have the ability to keyboard by touch.

Basic introduction to computers and the Windows operating environment. Explains components of a computer system and provides hands-on training using a personal computer. Intended for students new to using personal computers and the Windows environment. (A-F Only). Lecture/Lab. Not repeatable.

OFADM 363—UNDERSTANDING THE INTERNET 1 UNIT

9 Lecture Hours, 27 Lab Hours

Fundamentals of using the Internet. Topics included in the course: Internet terminology, use of browsers, search engines and sites, downloading of files, and e-mail. (A-F Only) Lecture/Lab. Not repeatable.

OFADM 364—GRAMMAR IN THE OFFICE 1 UNIT

18 Lecture Hours

Basic English grammar for office employees. Emphasis on parts of speech, subject and verb agreement, pronoun usage, sentences, punctuation, number usage, and business terms. (A-F Only) Lecture. Not repeatable.

OFADM 366—PROOFREADING TECHNIQUES 1 UNIT

9 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have successfully completed OFADM 304.

Self-paced course addressing the skills needed to identify mechanical and content errors in handwritten or printed text by using proofreader's marks. Grammar, punctuation, and spelling rules will be reviewed. (A-F Only) Lecture/Lab. Not repeatable.

OFADM 375—10-KEY ON THE COMPUTER 1 UNIT

9 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 301 or have the ability to keyboard by touch.

Touch system of numeric keys on the 10-key pad. (A-F Only). Lecture/Lab. Not repeatable.

Philosophy Courses (PHILO)

PHILO 101—PHILOSOPHY 3 UNITS

54 Lecture Hours

A careful and critical examination of some of the "Great Questions" philosophers have pursued from ancient times to the present concerning knowledge, reality, and values. Some of these include: What is human nature? What is real? Do we have free will? Does God exist? What can we know? How should we act? What is the source of evil? And, what is the nature of truth? Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC PHILO 1) (C-ID: PHIL 100) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

PHILO 103—SYMBOLIC LOGIC 3 UNITS

54 Lecture Hours

Also offered as CSCI 203 (CMPSC 103)

An introduction to the principles of valid deductive reasoning, including both sentential and predicate logic. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: PHIL 210) **General Education**: (MJC-GE: D2) (CSU-GE: A3)

PHILO 105—CRITICAL REASONING AND ANALYTIC WRITING 3 UNITS

54 Lecture Hours

Formerly listed as: PHILO 105: Reasoning

Prerequisite: Satisfactory completion of ENGL 101.

This course is an introduction to critical thinking and critical writing. Students will learn techniques of practical reasoning and argumentation, with emphasis on application of these techniques in the writing of a sequence of argumentative essays. Topics include: critical reading, argument analysis, recognizing propaganda and stereotypes, clarifying ambiguity, meaning and definition, evaluating evidence, logical correctness vs factual correctness, and common mistakes in reasoning (formal and informal fallacies). The class emphasizes critical writing strategies. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: D2) (CSU-GE: A3) (IGETC: 1B)

PHILO 107 —PHILOSOPHY OF SCIENCE 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 101.

Systematic study of the methods of scientific inquiry through the application of critical thinking through philosophical analysis of scientific methodology. Course will emphasize critical writing strategies and analytic writing. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: D2) (CSU-GE: A3) (IGETC: 1B)

PHILO 111 —ETHICS: THEORY AND APPLICATION 3 UNITS

54 Lecture Hours

Systematic study of reflective choice, standards of right and wrong by which it may be guided and attainable goods toward which it may be directed. Readings on representative ethical theories concerning morality and values including the concepts of good, duty, egoism, altruism, freedom, personal and social responsibility as well as applied ethics. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: PHIL 120) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

PHILO 113—PHILOSOPHY OF ART 3 UNITS

54 Lecture Hours

An examination of the central features of art as well as alternative accounts of art and aesthetic experience including discussions of beauty, representation, and truth. Field trips might be required.Lecture. (A-F or P/NP) Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

PHILO 115—RELIGION: A PHILOSOPHICAL AND COMPARATIVE INQUIRY 3 UNITS

54 Lecture Hours

Introduction to the philosophical problems of religion and a comparative analysis of religious traditions and spiritual practices. Topics include the nature and existence of God, faith and reason, religious knowledge, language and experience in human life. Lecture. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC HUMAN 4) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

PHILO 120—HISTORY OF PHILOSOPHY: ANCIENT 3 UNITS

54 Lecture Hours

Ancient philosophy with emphasis on the development of Greek philosophy from the Pre-Socratics through Aristotle. Course may also include later developments such as

Hellenistic, Roman, and Christian philosophy or prominent eastern philosophies. Some of the topics include free will/determinism, the nature of existence, being, definition, and logic. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: PHIL 130) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

PHILO 121—HISTORY OF PHILOSOPHY: MODERN **3 UNITS**

54 Lecture Hours

Western ideas and philosophy from the 16th through 18th centuries with an emphasis on knowledge and reality in philosophical thought from Descartes to Kant as well as the rise of modern science. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: PHIL 140) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

PHILO 123—TWENTIETH CENTURY PHILOSOPHY **3 UNITS**

54 Lecture Hours

An examination of late nineteenth and twentieth century philosophy, including but not limited to representative thinkers of American Pragmatism, Continental Existentialism, Phenomenology, Critical Theory, and Postmodernism, and Anglo-American Analytic Philosophy. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC PHILO 25) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

PHILO 130—POLITICAL PHILOSOPHY **3 UNITS**

54 Lecture Hours

A study of social and political thought using classical and contemporary writings, with emphasis on current issues. Ideologies discussed include democracy, socialism, capitalism, communism, fascism, and anarchism. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B)(MJC-GE: B, C) (CSU-GE: D8) (IGETC: 4H)

PHILO 135 —ENVIRONMENTAL ETHICS **3 UNITS**

54 Lecture Hours

How ought we to relate to the rest of nature? What, if anything, is the value of wilderness and wild animals? Are we morally bound to use technology in an ecologically responsible manner? Course will address questions and issues such as these that arise when considering the relationship between human beings and the environment. Topics include animal rights, land use policy, sustainability, bioengineering, climate change, environmental justice. Theoretical approaches include deep ecology, anthropocentrism, ecofeminism, and pragmatism. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC PHILO 35) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

PHILO 140—PHILOSOPHY AND FILM **3 UNITS**

54 Lecture Hours

An introduction to philosophical problems and reasoning's through an analysis of films. Topics discussed include philosophy of life and existence, political ideologies, the nature of aesthetic experience, and theories of film. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

PHILO 400—MEDICAL AND BIOETHICS **3 UNITS**

54 Lecture Hours

Limitations on Enrollment: Enrollment limited to students accepted into the Respiratory Care Baccalaureate Degree Program.

Explores the application of moral reasoning and ethical theories to issues and situations in medical settings. Special focus on the development of self-reflection, critical thinking and the written and verbal communication of well-reasoned, reflective positions. Topics include: the Hippocratic tradition; virtues of healthcare professionals; paternalism vs. autonomy; informed consent and confidentiality; genetic and reproductive ethics; disability; hospice, death and dying, advance directives; impaired and seriously ill infants; medical error; medical futility and technology; quality and sanctity of life; just allocation of resources. This upper division course is a required course and limited to those in the Respiratory Care B.S. program. Completion of English 101 or the equivalent is recommended. Not repeatable. Field trips might be required. Not repeatable. (A-F Only)

Physical Education Courses (PE, PEA, PEC, PEM, PEVM, PEVW, PEW)

Dance Courses See (DANCE)

The Physical Education program at MJC offers a balanced approach based upon the individual interests and needs of the student. In addition to a wide spectrum of physical education activity classes, MJC offers intercollegiate competition in many sports and adaptive physical education courses. Theory classes are offered in basketball, football, track and field, wrestling, softball, and baseball. Since the majority of career opportunities in Physical Education exist for students completing a bachelor's degree, General Education and Transfer courses are carefully planned so that students are well prepared for individual career needs and upper division college work.

Courses should be selected with the assistance of a Physical Education faculty advisor. Students interested in a career in Physical Education are encouraged to take a variety of activity classes each semester, thereby broadening their activity skills before Transfer.

ACTIVITIES REQUIREMENT FOR DEGREE

Physical Education classes used to fulfill the graduation activities requirement must be from the PEA, PEC, PEM, PEW, PEVM, or PEVW class listings.

PE 100—INTRODUCTION TO PHYSICAL EDUCATION **3 UNITS**

54 Lecture Hours

History, philosophy, and principles of Physical Education. Study of the aims and objectives of modern physical education with emphasis on the development of basic philosophy and background for the profession of physical education. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC)

PE 101—BASKETBALL THEORY **1 UNIT**

9 Lecture Hours, 27 Lab Hours

Basketball rules, mastery of position and team play. Development of strategies and philosophy. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

PE 102—OFFENSIVE FOOTBALL THEORY **2 UNITS**

18 Lecture Hours, 54 Lab Hours

An analysis of offensive position and team play. Critical analysis of offensive techniques, rules, physical and mental training procedures, and film evaluation. A-F or P/NP) Lecture/Lab. Not repeatable. Not repeatable. **Transfer**: (CSU, UC)

PE 103—TRACK AND FIELD TEAM CONCEPTS 2 UNIT

18 Lecture Hours, 54 Lab Hours

Specialized approach to track and field. Rules, training procedures, strategy,and performance evaluation. (A-F or P/NP) Lecture. Field trips are not required. Not repeatable. **Transfer**: (CSU, UC)

PE 104 —WRESTLING THEORY 1 UNIT

9 Lecture Hours, 27 Lab Hours

Analysis of wrestling; rule interpretation, winning psychology, film analysis. Repeatable up to 2 units maximum. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

PE 105—DEFENSIVE FOOTBALL THEORY 2 UNITS

18 Lecture Hours, 54 Lab Hours

An analysis of defensive position and team play. Critical analysis of defensive techniques, rules, physical and mental training, and film evaluation. Field trips are not required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

PE 106—OFFENSIVE BASEBALL THEORY 2 UNITS

18 Lecture Hours, 54 Lab Hours

An analysis of offensive techniques, position and team play. Coverage of rules and training procedures. (A-F or P/NP) Lecture/Lab. Field trips might be required. Not repeatable. **Transfer**: (CSU, UC)

PE 107—DEFENSIVE BASEBALL THEORY 2 UNITS

18 Lecture Hours, 54 Lab Hours

An analysis of defensive techniques, position and team play. Coverage of rules and training procedures. (A-F or P/NP) Lecture/Lab. Field trips might be required. Not repeatable. **Transfer**: (CSU, UC)

PE 108 —CARE AND PREVENTION OF ATHLETIC INJURIES 3 UNITS

54 Lecture Hours

Aid in the recognition, evaluation, and care of athletic injuries. Techniques in taping, prevention, and rehabilitation of injuries. Sport specific injuries are examined and discussed to familiarize students with the multitude of injuries that can and will occur in sporting activities. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC)

PE 109—PEAK PERFORMANCE THROUGH MENTAL TRAINING 3 UNITS

54 Lecture Hours

Techniques for maximizing sport and dance performance through the development of mental skills and strategies for stress control, imagery, goal setting and concentration. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC)

PE 110—OFFICIATING: SPRING SPORTS 3 UNITS

54 Lecture Hours

Regulations and techniques of officiating baseball and softball. (A-F or P/NP) Lecture. Field trips are not required. Not repeatable. **Transfer**: (CSU, UC)

PE 111—APPLICATION OF SPORTS MEDICINE 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of PE 108.

Practical application of modalities and techniques used in the treatment and care of athletic injuries for the prospective Athletic Trainer. Emphasis on injury recognition, development of conditioning and reconditioning programs and taping techniques to enable athletes to return to competitive activities. Field trips are not required. (A-F or P/NP) Not repeatable. **Transfer**: (CSU, UC)

PE 113—OFFENSIVE/DEFENSIVE SOFTBALL THEORY 2 UNITS

18 Lecture Hours, 54 Lab Hours

Analysis of offensive and defensive techniques, strategies, positions, and team play including rules and physical and mental training. Course designed to prepare the student to compete in collegiate softball. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

PE 114—CROSS COUNTRY CONCEPTS 2 UNIT

18 Lecture Hours,54 Lab Hours

Specialized approach to cross country and long distance running. Training procedures, performance evaluation, nutritional strength, and racing strategy components. (A-F or P/NP) Lecture. Field trips are not required. Not repeatable. **Transfer**: (CSU, UC)

PE 115—OFFICIATING: FALL SPORTS 3 UNITS

54 Lecture Hours

Regulations and techniques of officiating football and basketball. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC)

PE 116—FOOTBALL TEAM PLAY CONCEPTS 2 UNITS

18 Lecture Hours, 54 Lab Hours

Essential concepts of team-building in football. Goal-setting and development of individual roles. Exploration of team communication processes and activation of leadership of the successful football team. Provides both the participant and the future mentor specialized exposure for an in-depth survey of team building in regard to the sport of football. Lecture/Laboratory. Field trips might be required.(A-F or P/NP)(Fall) Not repeatable. **Transfer**: (CSU, UC)

PE 118—SPECIAL TEAMS FOOTBALL THEORY 2 UNITS

18 Lecture Hours, 54 Lab Hours

An analysis of kick and return play in college level football. Critical analysis and practical application of physical training procedures, techniques of play and rules. Field trips are not required. Not repeatable. (A-F Only) Lec/Lab. **Transfer**: (CSU, UC)

PE 120—SPORTS AND SOCIETY 3 UNITS

54 Lecture Hours

Examine sports as a significant aspect of modern culture and a major institution of modern society. Among the topics that will be analyzed include: gender and sports, the relationship between organized sports and aggression, sports as an economy, and the issues of social class and race in sports. Field trips are not required. Lecture. (A-F or P/NP) Not repeatable. **Transfer**: (CSU, UC) (CC HHP 63)

PE 121—COACHING EFFECTIVENESS 3 UNITS

54 Lecture Hours

Role of coach in athletics, ethics, leadership and management principles, psycho-social aspects of athlete behavior management, motor learning, physiological systems and physical training theory. Lecture. (A-F of P/NP) Not repeatable. **Transfer**: (CSU, UC)

PE 122—ADAPTED PHYSICAL EDUCATION THEORY AND LAB 3 UNITS

36 Lecture Hours, 54 Lab Hours

Common definitions, scope and basic concepts of Adapted Physical Education. A study of specific disabilities, with a primary focus on identification, etiology and implications for physical education. Course includes practical experience in the field. Intended for students interested in pursuing a career in physical therapy, nursing, adapted physical education, gerontology or fields requiring one to work with individuals with disabilities. Lecture/Laboratory. Not repeatable. (A-F Only) **Transfer**: (CSU, UC)

PE 124—INTRODUCTION TO KINESIOLOGY 3 UNITS

54 Lecture Hours

Introduction to the interdisciplinary approach to the study of human movement. An overview of the importance of the sub-disciplines in Kinesiology will be discussed along with career opportunities in the areas of teaching, coaching, allied health, and fitness professions. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC HHP 3) (C-ID: KIN 100) **General Education**: (MJC-GE: A)

PE 126—INTRODUCTION TO SPORT MANAGEMENT 3 UNITS

54 Lecture Hours

Introduction to the philosophy, organization, issues and career paths of sport management. Study will include career opportunities in sport enterprises, agencies and facilities, basic management functions, scope of sport managers' responsibilities and a survey of relevant literature. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU)

PE 130—PERSONAL TRAINER HEALTH FITNESS INSTRUCTOR 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 195 or satisfactorily complete PEC 197 or satisfactorily complete PEW 192.

Basic competency in designing and implementing fitness programs for a healthy population. Features both practical and theoretical instruction as well as career advice. Emphasis on safe, effective and efficient methods of teaching cardiovascular training, resistance training, balance training and flexibility training for individuals or groups. Covers a broad range of exercise physiology, exercise program design, anatomy of major muscle groups, interval and circuit training, exercise biomechanics, advanced lifting techniques, the basics of working with special populations, and exercise progression. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

PE 141—SUPERVISION IN ATHLETIC TRAINING 2 UNITS

18 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of PE 108

Policies, procedures, and daily functions that are necessary for the student to work in the Athletic Treatment Center. Field trips are not required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

PE 142—SUPERVISION IN ATHLETIC TRAINING 2 2 UNITS

18 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of PE 141.

Second semester course on policies and procedures, emergency protocols, and daily functions of the Athletic Treatment Center. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

PE 143—SUPERVISION IN ATHLETIC TRAINING 3 2 UNITS

18 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of PE 142.

Third semester course on policies and procedures, emergency protocols, and daily function necessary for the student to work in the Athletic Treatment Center and to cover college athletic events. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

PE 144—SUPERVISION IN ATHLETIC TRAINING 4 2 UNITS

18 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of PE 143.

Fourth semester course on policies and procedures, emergency protocols, and daily functions of the Athletic Treatment Center Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

PHYSICAL EDUCATION: ADAPTED ACTIVITIES COURSES (PEA)

PEA 104—ADAPTED STRENGTH DEVELOPMENT 1 UNIT

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of disability and recommendation of medical specialist.

Development and maintenance of muscular strength for students with physical/medical limitations. Emphasis on encouraging independence and teaching lifelong fitness knowledge and skills. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEA 106—FUNCTIONAL WATER EXERCISE 1 UNIT

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of physical or learning disability or motor problems.

A specialized course involving aquatic exercises which include range of motion, strength, cardiovascular endurance, and flexibility training. Specialized adapted equipment appropriate for limited mobility conditions may be used. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEA 107—ADAPTED SWIMMING **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of physical or learning disability or motor problems.

Basic water safety and swim skills. A specialized course in physical exercise which includes; personalized and group swim exercises which include strength, endurance, flexibility training and instruction in improving and/or modifying swimming skills. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEA 108—ADAPTED AQUATICS **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of physical or learning disability or motor problems.

A specialized course in aquatic exercise which includes personalized and group exercises for strength, endurance, and flexibility. Specialized adapted equipment appropriate for limited mobility conditions may be used. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEA 116—ADAPTED RUN/WALK **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of physical or learning disability.

Personalized and group exercises that include development of an overall fitness routine involving conditioning for walking and/or running: balance, gait, functional motor control, developmental movement, strength and endurance. Emphasis on encouraging independence and teaching lifelong fitness knowledge and skills. Field trips are not required. (A-F or P/NP) Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**:(Activities)

PEA 119—ADAPTED SPORTS **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of physical or developmental disability.

Introduces students with physical and/or developmental disabilities to a variety of sports. Students will safely participate in sports such as, but not limited to, softball, volleyball, tennis, frisbee, soccer, basketball, and golf. Field trips are not required. (A-F or P/NP) Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEA 141—ADAPTED FITNESS **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of disability and recommendation of medical specialist.

A specialized course in physical exercise which includes individual and group exercises that include development of an overall fitness routine involving all aspects of body conditioning: balance, flexibility, functional motor control, developmental movement, strength and endurance. There will be an emphasis on encouraging independence and teaching lifelong fitness knowledge and skills. Field trips are not required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PHYSICAL EDUCATION: ADAPTED ACTIVITIES COURSES NON-CREDIT COURSES (PEA)

PEA 800—ADAPTIVE EXERCISE FOR MATURE ADULTS **0 UNITS**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to Seek physician(s)' recommendations on exercise limitations and advisories.

Exercise course for students with disability limitations. Course will introduce and utilize sports and sports skills and/or the adapted weight room for body maintenance, strengthening and conditioning. Unlimited repeats. Field trips are not required. (Non-Graded course) Lab.

PHYSICAL EDUCATION: COED ACTIVITIES COURSES (PEC)

FOR DANCE COURSES SEE (DANCE)

PEC 102—WATER AEROBICS **1 UNIT**

54 Lab Hours

Cardiovascular fitness; strength improvement and increased range of motion, and flexibility through low-impact water aerobics. Field trips are not required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 107—AQUA JOGGING **1 UNIT**

54.00 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to demonstrate basic swimming and/or water safety skills.

A course in deep water running utilizing specialized equipment that closely mimics actual running movement. Provides neuromuscular workout that, in addition to aerobic benefits, helps keep specific muscles active. Field trips are not required. Not repeatable. Lab. (A-F or P/NP) **Transfer**: (CSU) **Local Requirement**: (Activities)

PEC 108—DEEP WATER AEROBICS **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to demonstrate basic swimming and/or water safety skills. A course in aquatic exercise which includes group exercises utilizing strength, endurance, and flexibility training in deep water which can involve specialized aquatic equipment. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requ**irement: (Activities)

PEC 111—BEGINNING RACQUETBALL **1 UNIT**

54 Lab Hours

Fundamentals of racquetball. Participation at local court. Expenses are the responsibility of the student. Materials fee required. (A-F or P/NP) Lab. **Local Requ**irement: (Activities) Not repeatable. **Transfer**: (CSU, UC)

PEC 112—INTERMEDIATE RACQUETBALL **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 111.

Intermediate skills and theory. Basic singles and doubles play. Participation at local court. Expenses are the responsibility of the student. Materials Fee Required (A-F or P/NP) Lab. Not repeatable. **Local Requ**irement: (Activities) **Transfer**: (CSU, UC)

PEC 115—WALKING/JOGGING FOR IMPROVED FITNESS **1 UNIT**

54 Lab Hours

Instruction in the principles of fitness through a walking/jogging program that consists of cardiovascular activity progression. Designed to build and/or improve cardiorespiratory endurance and overall fitness levels. Field trips are not required. Not repeatable. (A-F or P/NP) **Transfer**: (CSU) Lab. **Local Requirement**: (Activities)

PEC 128—AEROBICS **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be able to move and breathe with reasonable ease and with limited risk for incurring injury.

Aerobic movements for improved cardiovascular condition, muscle strength and endurance, flexibility, balance, agility, coordination, and weight control. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 131—AEROBICS 2 **1 UNIT**

54 Lab Hours

Intermediate aerobic movements with improved cardiovascular condition, muscle strength and endurance. Greater use of flexibility, balance and agility during aerobic routines. Field trips are not required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 135—SPRINGBOARD DIVING **1 UNIT**

54 Lab Hours

Springboard diving course for students of all ability levels. Workouts will include stretching, strength development, flexibility and coordination exercises, techniques of the approach, hurdle, press, takeoff , flight and entry. Mid-air maneuvers will be identified and practiced on one meter and three meter diving boards as skill levels increase. Basic water safety and related safety issues will be included. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 140—EXERCISE FOR FITNESS **1 UNIT**

54 Lab Hours

Cardiovascular improvement and respiratory efficiency through a variety of physical activities consisting of continuous motion exercises. Field trips are not required. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 142—EXERCISE FOR FITNESS 2 **1 UNIT**

54 Lab Hours

Cardiovascular improvement and respiratory efficiency through a variety of high level physical activities and sports skills. Field trips are not required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 143—BEGINNING GOLF **1 UNIT**

54 Lab Hours

Fundamentals of golf. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 144—INTERMEDIATE GOLF **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 143 or demonstrate basic knowledge and skills of the game.

Further application of the fundamentals and rules of golf for the improvement of game skills and knowledge. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 145—ADVANCED GOLF **1 UNIT**

54 Lab Hours

Formerly listed as: PEC 145A: Advanced Golf

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 144.

Acquisition and development of advanced golf skills and strategies for tournament play Field trips are not required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 147—GYMNASTICS **1 UNIT**

54 Lab Hours

Also offered as: PEC 147A: Gymnastics

Tumbling, floor exercise, stunts, and acrobatic skills are taught and practiced n progression and combined for skill development. Field trips are not required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 148—YOGA FOR BETTER HEALTH **1 UNIT**

54 Lab Hours

Fitness class using Yoga postures, breathing, and relaxation techniques to increase flexibility and strength, balance and coordination. Appropriate for all ages and learning abilities. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 157—ADVANCED JUDO **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 165 or PEC 166 or PEW 167 or demonstrate basic judo skills and competencies, along with a knowledge and understanding of judo concepts, terminology, etiquette, and methods of scoring, timekeeping, and elimination systems.

Intermediate and advanced skills (standing,mat and falling techniques) and strategies to improve judo techniques and enhance competitiveness. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 159—FALL SPIRIT LEADERSHIP TRAINING 2 UNITS

108 Lab Hours

Formerly listed as: PEC 159A: Spirit Leadership Training

Instruction, training, and development of a corps of spirit leaders to promote enthusiasm for school athletic activities. Field trips might be required. (A-F or P/ NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 160—SPRING SPIRIT LEADERSHIP TRAINING 1 UNIT

54 Lab Hours

Instruction, training and development of a corps of spirit leaders for school athletic activities for Spring sports. Field trips might be required. (A-F or P/NP)Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 162—AIKIDO 1 UNIT

54 Lab Hours

An introduction to the philosophy, principles and fundamental techniques of Aikido, a Martial Art employing ancient self-defense techniques from Jujutsu, Samuri Sword Combat and other Martial Arts. Students learn to use an attacker's aggression to redirect his energy, take his balance and effortlessly take him to the ground. Field trips might be required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 163—AIKIDO 2 INTERMEDIATE 1 UNIT

54 Lab Hours

Formerly listed as: PEC 163: Aikido 2, Intermediate

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 162 or hold Kyu rank from an Aikido Dojo.

A continuing exploration of the fundamental principles and techniques of Aikido, an ethical Japanese martial art based on non-aggressive, non-resistant, co-creative conflict resolution and internal personal growth by non-competitive means. Field trips might be required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 164—SELF DEFENSE 1 UNIT

54 Lab Hours

A practical course in self defense. Practice of various basic techniques and principles of balance, leverage, and momentum. Discussion of how to avoid threatening situations in the home or on the street. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 165—BEGINNING JUDO 1 UNIT

54 Lab Hours

Formerly listed as: PEC 165: Judo

Judo is a challenging martial art based on the philosophy of using maximum efficiency and maximum effort. This course is designed to teach the fundamental skills and techniques to the student as a recreational activity and/or on a competitive basis. Field trips might be required.(A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 166XA—INTERMEDIATE JUDO 0.5-1 UNITS

X=4.38 Lecture Hours, 13.12 Lab Hours, A= 9 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 165.

Instruction and practice in the intermediate skills of the sport of Judo. Course will cover the terminology, etiquette along with throwing and grappling techniques, with integration of various Katas (forms) and Randori (free exercise). (A-F or P/NP) Lecture/ Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 168—BEGINNING SWIMMING 1 UNIT

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have the ability to enter shallow water.

Basic skills of floating, breathing,kicking, pulling, using arms and legs. (A-For P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 169—INTERMEDIATE SWIMMING 1 UNIT

54 Lab Hours

Recommended for success: Satisfactory completion of PEC 168A.

Continued development in basic stroke techniques and endurance for intermediate swimming. Lab. (A-F or P/NP) Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 170—ADVANCED SWIMMING 1 UNIT

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 168.

Continued development in stroke techniques, and workout knowledge for advanced swimming. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 171 —SWIM FOR FITNESS 1 UNIT

54 Lab Hours

Limitations on Enrollment: Enrollment limited to students who can swim in deep water.

Basic stroke techniques and endurance swimming for intermediate and or advanced swimmers. (A-F or P/NP - Student choice) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 172—LIFEGUARD TRAINING 1 UNIT

54 Lab Hours

Prerequisite: Pass swimming pre-test, be at least 15 years old on the first day of class.

Preventive lifeguarding, learning how to recognize specific characteristic behaviors of patrons at an aquatic facility; facility emergency planning; First Aid and CPR for the Professional Rescuer included. Successful course completion results in American Red Cross certification in lifeguard training, CPR and first aid. Lab. (A-F or P/NP). Materials fee required. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 175—BEGINNING TENNIS **1 UNIT**

54 Lab Hours

Fundamental skills in tennis. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 176—INTERMEDIATE TENNIS **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 175.

Development of net and back-court skills and strategies, net play, volleying, overheads and proficiency in rules, terminology, and etiquette. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 177—ADVANCED TENNIS **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 176.

Skills and strategies of competitive tennis, including tournaments and ladder play. (AF or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 178—TOURNAMENT TENNIS **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 177.

This course is designed for the experienced tennis player; includes in-class competition. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 179—TRACK AND FIELD **1 UNIT**

54 Lab Hours

Generalized training and techniques for track and field. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 182—TRAINING FOR DISTANCE RUNNING **1 UNIT**

54 Lab Hours

Endurance distance running with organized training runs. Creating an effective training program, nutrition, weight training and cross training. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 183—VOLLEYBALL **1 UNIT**

54 Lab Hours

Fundamentals of volleyball. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 184—POWER VOLLEYBALL **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 183.

Power volleyball for team play. Advanced offensive and defensive strategy and game skills. (A-F or P/NP) Not repeatable. Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 186—INTERMEDIATE VOLLEYBALL **1 UNIT**

54 Lab Hours

Intermediate volleyball skills, theories, offensive, and defensive strategy. Field trips are not required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 187—PILATES FOR FITNESS **1 UNIT**

54 Lab Hours

A fitness class that utilizes the Pilates exercise system focused on improving flexibility and strength for the total body through a series of controlled movements. Pilates exercises can improve posture, alignment, coordination and balance. Movements are designed to tone muscles without putting stress on the spine. For people of all ages and fitness levels. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 190—ADVANCED WATER POLO **1 UNIT**

54 Lab Hours

Advanced team play and game strategy in water polo. Field trips are not required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 191—POWERLIFTING **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 195 or satisfactorily complete PEW 192.

Advanced techniques of effective strength training in a supervised program with an emphasis on traditional powerlifting using free weight and supplemental exercise programs. Field trips are not required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 192—PILATES 2 **1 UNIT**

54 Lab Hours

A fitness class that utilizes intermediate Pilates exercises focused on improving flexibility and core strength. Field trips are not required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 195 —WEIGHT TRAINING **1 UNIT**

54 Lab Hours

Principles and procedures of effective strength training techniques in a supervised weight training program. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEC 197—ADVANCED WEIGHT TRAINING **1 UNIT**

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 195.

Strength training in a supervised weight training environment with an emphasis on Olympic style weightlifting. Not repeatable. Field trips are not required. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PHYSICAL EDUCATION: MEN'S ACTIVITIES COURSES (PEM)

PEM 108—BASEBALL **1 UNIT**

54 Lab Hours

Fundamentals and theory of collegiate baseball. Field trips are not required. (A-F or P/NP) Not repeatable. Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEM 112—BEGINNING BASKETBALL **1 UNIT**

54 Lab Hours

Basic skills, strategies, and rules of basketball. Field trips are not required. (A-F or P/ NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEM 113—INTERMEDIATE BASKETBALL **1 UNIT**

54 Lab Hours

Intermediate skills and theory. Basic team play concepts. Field trips are not required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEM 114—ADVANCED BASKETBALL **1 UNIT**

54 Lab Hours

Advanced skills, theory, and concepts of competitive basketball team play. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEM 140—TOUCH FOOTBALL AND KANAKI **1 UNIT**

54 Lab Hours

Discussion and practical applications of rules and strategy, with emphasis on individual movements found in offensive and defensive touch football and kanaki. Field trips are not required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEM 141XA—ADVANCED TOUCH FOOTBALL **0.5- 1 UNIT**

X= 27 Lab Hours, A= 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have previously participated in high school and/or intercollegiate sports requiring strength, agility, and physical conditioning.

Conditioning, skills, rules and strategies with emphasis on the passing game to prepare for participation in advanced football. Field trips are not required. Not repeatable. (AF or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEM 162—SOCCER **1 UNIT**

54 Lab Hours

Practical application of basic offensive and defensive tactics; individual and team skills; strategy and rules review; scrimmages. Field trips are not required. (A-F or P/ NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEM 163—SOCCER 2 **1 UNIT**

54 Lab Hours

Practical application of intermediate defensive and offensive tactics; individual and team skills, match strategy, and application of the rules. Field trips are not required. (AF or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEM 165—SOCCER 3 **1 UNIT**

54 Lab Hours

Practical application of collegiate offensive and defensive tactics; individual and team skills, match strategy, and application of the rules. Field trips are not required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEM 196—ADVANCED WRESTLING **1 UNIT**

54 Lab Hours

Advanced wrestling and training methods, and the philosophy behind winning at advanced levels of competition. Field trips are not required. Not repeatable. (A-F or P/ NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PHYSICAL EDUCATION: VARSITY MEN'S ACTIVITIES COURSES (PEVM)

Courses listed below offer advanced instruction and intensive training in sports fundamentals to develop teams for intercollegiate competition. A varsity activity may be taken a maximum of four times. Participation in intercollegiate sports requires concurrent enrollment in not less than 12 units of work, nine of which must be in courses counting toward the associate degree, remediation, Transfer and/or certification. Special medical examinations are required for students participating in competitive sports. Verification of insurance is also required. Participation in a second sport or a second year of a sport requires a 2.0 grade point average and 24 units passed.

PEVM 100—VARSITY BASEBALL **3 UNITS**

162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass a tryout.

Instruction, training, and competition in intercollegiate baseball. Four completions allowed. Field trips are not required. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 101XABC—TRAINING AND CONDITIONING FOR BASEBALL **0.5-3 UNITS**

X= 27 Lab Hours A= 54 Lab Hours B= 108 Lab Hours C= 162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate baseball skills as determined by the coaching staff.

Prepares the collegiate baseball player mentally and physically for competitive play and reduces risk of injury. Includes collegiate level baseball skill and strategy development, conditioning, sport specific strength training, agility work, speed training, and flexibility exercises; as well as team play activities. Four completions allowed, Field trips might be required. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 105—MEN'S VARSITY BASKETBALL (FALL) **2 UNITS**

108 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass a tryout.

Instruction, training, and competition in intercollegiate basketball (Fall semester) Four completions allowed. Field trips are not required. Lab. (A-F Only) **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 106—MEN'S VARSITY BASKETBALL - SPRING 1 UNIT

54 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass a tryout.

Continued instruction, training, and competition in intercollegiate basketball (Spring semester) Four completions allowed. Field trips are not required. (A-F Only) **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 107XABC—TRAINING & CONDITIONING FOR BASKETBALL 0.50- 3 UNITS

X= 27 Lab Hours, A= 54 Lab Hours, B= 108 Lab Hours, C= 162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate athletic skills as determined by the coaching staff.

Prepares the collegiate basketball player mentally and physically for competitive play and reduces the risk of injury. Includes collegiate level basketball skill and strategy development, conditioning, sport specific strength training, agility work, speed training, flexibility exercises; as well as team play activities. Four completions allowed, Field trips might be required. (A-F Only) **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 110—MEN'S VARSITY CROSS COUNTRY 3 UNITS

175 Lab Hours

Instruction, training, and competition in intercollegiate Cross Country. (Fall).Four completions allowed. (A-F Only) Lab. **Transfer**: (CSU, UC)**Local Requirement**: (Activities)

PEVM 111XABC— TRAINING AND CONDITIONING FOR CROSS COUNTRY 0.5- 3 UNITS

X= 27 Lab Hours, A= 54 Lab Hours, B= 108 Lab Hours, C= 162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate athletic skills as determined by the coaching staff.

Prepares the collegiate cross country athlete mentally and physically for competitive play and reduce risk of injury. Includes collegiate level cross country skill and strategy development, conditioning, sport specific strength training, agility work, speed training, and flexibility exercises; as well as team activities. Four completions allowed, Field trips might be required. (A-F Only) **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 115—VARSITY FOOTBALL 3 UNITS

175 Lab Hours

Instruction, training, and competition in intercollegiate football. Four completions allowed. Field trips might be required.(A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 116XABC—TRAINING AND CONDITIONING FOR FOOTBALL 0.5-3 UNITS

X= 27.00 Lab Hours, A= 54.00 Lab Hours, B= 108.00 Lab Hours, C= 162.00 Lab

Hours,Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate athletic skills as determined by the coaching staff.

Prepares the collegiate football player mentally and physically for competitive play and reduces risk of injury. Includes collegiate level football skill and strategy development, conditioning, sport specific strength training, agility work, speed training, flexibility exercises; as well as team play activities. Four completions allowed, Field trips might be required. (A-F or P/NP) **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 120—MEN'S VARSITY GOLF 3 UNITS

162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass a tryout.

Instruction, training, and competition in intercollegiate golf. Four completions allowed. Field trips are not required.(A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 122—MEN'S VARSITY SOCCER 3 UNITS

162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate athletic skills as determined by the coaching staff.

Instruction, training, and competition in intercollegiate soccer. Four completions allowed. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 125—MEN'S VARSITY SWIMMING AND DIVING 3 UNITS

162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass a tryout.

Instruction, training, and competition in intercollegiate swimming and diving. Four completions allowed. Field trips are not required. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 130—MEN'S VARSITY TENNIS 3 UNITS

162 Lab Hours

Instruction, training, and competition in intercollegiate tennis. Four completions allowed, Field trips are not required. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 131XABC—TRAINING AND CONDITIONING FOR TENNIS 0.50- 3 UNITS

X= 27 Lab Hours, A= 54 Lab Hours, B= 108 Lab Hours, C= 162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate athletic skills as determined by the coaching staff.

Prepares the tennis player mentally and physically for competitive play and reduces risk of injury. Includes collegiate level tennis skill and strategy development, conditioning, sport specific strength training, agility work, speed training, flexibility exercises; as well as team play activities. Four completions allowed, Field trips might be required. (A-F Only) **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 135—MEN'S VARSITY TRACK AND FIELD 3 UNITS

162 Lab Hours

Instruction, training, and competition in intercollegiate track and field events. Four completions allowed. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 136XABC—TRAINING AND CONDITIONING FOR TRACK AND FIELD 0.50- 3 UNITS

X= 27 Lab Hours A= 54 Lab Hours B= 108 Lab Hours C= 162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass a tryout.

Prepares the collegiate track and field athlete mentally and physically for competitive play and reduce risk of injury. Includes collegiate level track and field skill and strategy development, conditioning, sport specific strength training, agility work, speed training, and flexibility exercises; as well as team play activities. Field trips might be required. Four completions allowed. Field trips might be required. (A-F Only) **Transfer**: (CSU) Lab. **Local Requirement**: (Activities)

PEVM 140—MEN'S VARSITY WATER POLO 3 UNITS

162 Lab Hours

Instruction, training, and competition in intercollegiate water polo. Four completions allowed. Field trips are not required. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 141XABC—TRAINING AND CONDITIONING FOR WATER POLO 0.5-3 UNITS

X= 27 Lab Hours A= 54 Lab Hours B= 108 Lab Hours C= 162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate athletic skills as determined by the coaching staff.

Prepares the collegiate water polo player mentally and physically for competitive play and reduces risk of injury. Includes collegiate level water polo skills and strategy development, conditioning, sport specific strengths training, agility work, speed training, flexibility exercises: as well as team play activities. Four completions allowed, Field trips might be required. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 145—VARSITY WRESTLING 3 UNITS

162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass a tryout.

Instruction, training, and competition in intercollegiate wrestling. Four completions allowed. Field trips are not required. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVM 146XABC—TRAINING AND CONDITIONING FOR WRESTLING 0.5- 3 UNITS

X= 27 Lab Hours A= 54 Lab Hours B= 108 Lab Hours C= 162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass a tryout.

Prepares the collegiate wrestler mentally and physically for competitive play and reduced risk of injury. Includes collegiate level wrestling skill and strategy development, conditioning, sport specific strength training, agility work, speed training, and flexibility exercises; as well as team activities. Four completions allowed. Field trips are not required. (A-F Only) Lab. **Transfer**: (CSU) **Local Requirement**: Activities)

PEVM 147XABC—TRAINING AND CONDITIONING FOR ATHLETICS 0.50-3 UNITS

X= 27 Lab Hours A= 54 Lab Hours B= 108 Lab Hours C= 162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass a tryout.

Prepares the collegiate athlete physically and mentally for competitive play and reduced risk of injury. Includes collegiate level skill and strategy development, conditioning, sport specific strength training, agility work, speed training, and flexibility exercises; as well as team play activities. Four completions allowed. Field trips might be required. (A-F Only) Lab. **Transfer**: (CSU) **Local Requirement**: (Activities)

PHYSICAL EDUCATION: VARSITY WOMEN'S ACTIVITIES COURSES (PEVW)

Courses listed below offer advanced instruction and intensive training in sports fundamentals to develop teams for intercollegiate competition. A varsity activity may be taken a maximum of four times. Participation in intercollegiate sports requires concurrent enrollment in not less than 12 units of work, nine of which must be in courses counting toward the associate degree, remediation, Transfer, and/or certification. Special medical examinations are required for students participating in competitive sports. Insurance is also required. Participation in a second sport or a second year of a sport requires a 2.0 grade point average and 24 units passed.

PEVW 100—WOMEN'S VARSITY BASKETBALL - FALL 2 UNITS

108 Lab Hours

Limitations on Enrollment: Enrollment limited to students who demonstrate collegiate level basketball skills, as determined by the coaching staff.

Instruction, training, and competition in intercollegiate basketball. (Fall semester) Four completions allowed, Field trips are not required. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 101—WOMEN'S VARSITY BASKETBALL - SPRING 1 UNIT

54 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass a tryout.

Continued instruction, training, and competition in intercollegiate basketball. (Spring Semester) Four completions allowed. Field trips are not required. Lab. (A-F Only) **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 102XABC—TRAINING & CONDITIONING FOR BASKETBALL 0.5-3 UNITS

X= 27 Lab Hours A= 54 Lab Hours B= 108 Lab Hours C= 162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate athletic skills as determined by the coaching staff.

Prepare the collegiate basketball player mentally and physically for competitive play and reduces risk of injury. Includes collegiate level basketball skill and strategy development, conditioning, sport specific strength training, agility work, speed training, flexibility exercises; as well as team play activities. Four completions allowed, Field trips are not required. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 103—WOMEN'S VARSITY CROSS COUNTRY 3 UNITS

175 Lab Hours

Instruction, training, and competition in intercollegiate cross country running. Four completions allowed. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 104XABC— TRAINING AND CONDITIONING FOR CROSS COUNTRY 0.5-3 UNITS

X= 27 Lab Hours, A= 54 Lab Hours, B= 108 Lab Hours, C= 162 Lab Hours,

Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate athletic skills as determined by the coaching staff.

Prepares the collegiate cross country student-athlete mentally and physically for competitive play and reduce risk of injury. Includes collegiate level cross country skill and strategy development, conditioning, sport specific strength training, agility work, speed training, and flexibility exercises. Four completions allowed, Field trips might be required. (A-F Only) **Transfer**: (CSU, UC) **Local Requirement:** (Activities)

PEVW 115—WOMEN'S VARSITY GOLF 3 UNITS

175 Lab Hours

Instruction, practice, and competition in intercollegiate golf. Four completions allowed. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 116XABC—TRAINING AND CONDITIONING FOR GOLF 0.5-3 UNITS

X= 27 Lab Hours, A= 54 Lab Hours, B= 108 Lab Hours, C= 162 Lab Hours,

Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate athletic skills as determined by the coaching staff.

Prepares the collegiate golf player mentally and physically for competitive play and reduce the risk of injury. Includes collegiate level golf skill and strategy development, conditioning, sport specific strength training, agility work and flexibility exercises; as well as team play activities. Four completions allowed, Field trips might be required. (A-F Only) **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 120—WOMEN'S VARSITY SOFTBALL 3 UNITS

162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass a tryout.

Instruction, training, and competition in intercollegiate softball. Four completions allowed. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 121XABC—TRAINING AND CONDITIONING FOR SOFTBALL 0.5-3 UNITS

X= 27.00 Lab Hours, A= 54.00 Lab Hours, B= 108.00 Lab Hours, C= 162.00 Lab Hours

Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate athletic skills as determined by the coaching staff.

Prepares the collegiate softball player mentally and physically for competitive play and reduce risk of injury. Includes collegiate level softball skill and strategy development, conditioning, sport specific strength training, agility work, speed training, and flexibility exercises; as well as team play activities. Four completions allowed, Field trips might be required. (A-F Only) **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 123—WOMEN'S VARSITY SOCCER 3 UNITS

162 Lab Hours

Instruction, training, and competition in intercollegiate soccer. Four completions allowed. Field trips are not required.(A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 124XABC— TRAINING AND CONDITIONING FOR SOCCER 0.5-3 UNITS

X= 27 Lab Hours, A= 54 Lab Hours, B= 108 Lab Hours, C= 162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate soccer skills as determined by the coaching staff.

Prepares the collegiate soccer player mentally and physically for competitive play and reduce risk of injury.

Includes collegiate level soccer skill and strategy development, conditioning, sport specific strength training, agility work, speed training, and flexibility exercises; as well as team play activities. Four completions allowed. Field trips might be required. (A-F Only) **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 125—WOMEN'S VARSITY SWIMMING AND DIVING 3 UNITS

162 Lab Hours

Instruction, training, and intercollegiate competition in swimming and diving. Four completions allowed. Field trips are not required. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 130—WOMEN'S VARSITY TENNIS 3 UNITS

175 Lab Hours

Instruction, training, and competition in intercollegiate tennis. Four completions allowed. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 135—WOMEN'S VARSITY TRACK AND FIELD 3 UNITS

175 Lab Hours

Instruction, training, and competition in intercollegiate track and field events. Four completions allowed. (A-F Only) Lab. Transfer: (CSU, UC) Local Requirement: (Activities)

PEVW 136XABC— TRAINING AND CONDITIONING FOR TRACK AND FIELD 0.50-3 UNITS

X= 27 Lab Hours, A= 54 Lab Hours, B= 108 Lab Hours, C= 162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate athletic skills as determined by the coaching staff.

Prepares the collegiate track and field athlete mentally and physically for competitive play and reduce risk of injury. Includes collegiate level track and field skill and strategy development, conditioning, sport specific strength training, agility work, speed training, and flexibility exercises. Four completions allowed, Field trips might be required. (A-F Only) **Transfer**: (CSU, UC) **Local Requ**irement: (Activities)

PEVW 140—WOMEN'S VARSITY VOLLEYBALL 3 UNITS

162 Lab Hours

Instruction, training, and competition in intercollegiate water polo. Four completions allowed. Field trips are not required. (A-F Only) **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 141XABC—TRAINING & CONDITIONING FOR VOLLEYBALL 0.5-3 UNITS

X= 27 Lab Hours A= 54 Lab Hours B= 108 Lab Hours C= 162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who demonstrate intercollegiate volleyball skills as determined by the coaching staff.

Prepares the collegiate volleyball player mentally and physically for competitive play and reduce risk of injury. Includes collegiate level volleyball skill and strategy development, conditioning, sport specific strength training, agility work, speed training, and flexibility exercises; as well as team play activities. Four completions allowed, Field trips might be required. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEVW 145—WOMEN'S VARSITY WATER POLO 3 UNITS

162 Lab Hours

Instruction, training, and competition in intercollegiate water polo. Four completions allowed. Field trips are not required. (A-F Only) **Transfer**: (CSU, UC) **Local Requirement:** (Activities)

PEVW 147XABC—TRAINING & CONDITIONING FOR ATHLETICS 0.50-3 UNITS

X= 27 Lab Hours A= 54 Lab Hours B= 108 Lab Hours C= 162 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass a tryout.

Prepares the collegiate athlete physically and mentally for competitive play and reduced risk of injury. Includes collegiate level skill and strategy development, conditioning, sport specific strength training, agility work, speed training, and flexibility exercises; as well as team play activities. Four completions allowed. Field trips might be required. (A-F Only) Lab. **Transfer**: (CSU) **Local Requirement**: (Activities)

PHYSICAL EDUCATION: WOMEN'S ACTIVITIES COURSES (PEW)

PEW 163—SOCCER 2 1 UNIT

54 Lab Hours

Practical application of intermediate defensive and offensive tactics; individual and team skills, match strategy, and application of the rules, Filed trips are not required. Not repeatable. (A-F Only) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEW 164—WOMEN'S INDOOR-OUTDOOR SOCCER 1 UNIT

54 Lab Hours

Fundamentals of women's indoor and outdoor soccer. Field trips are not required. (A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEW 166—WOMEN'S SELF DEFENSE 1 UNIT

54 Lab Hours

Formerly listed as: PEW - 166A: Women's Self Defense

A practical course in women's self defense. Practice of basic techniques and principles of balance, leverage, and momentum. Discussion and practical exercises on how to avoid and handle threatening situations. Field trips are not required. Not repeatable. (A-F or P/NP) **Transfer**: (CSU, UC) Lab. **Local Requirement**: (Activities)

PEW 167—WOMEN'S BEGINNING JUDO 1 UNIT

54 Lab Hours

A course designed to teach the fundamental skills and techniques of judo, a challenging martial art based on the use of maximum efficiency and maximum effort. Field trips are not required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEW 180—WOMEN'S SOFTBALL 1 UNIT

54 Lab Hours

Discussion and practical application of fast-pitch softball rules, strategy, fielding, throwing, base running, team offense, and team defense. Not repeatable. Field trips are not required. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEW 181—DEFENSIVE SOFTBALL 1 UNIT

54 Lab Hours

Focus on a defensive perspective of conditioning, training, skills, and strategies for collegiate softball. Field trips are not required. (A-F Only) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

PEW 192—WOMEN'S WEIGHT TRAINING 1 UNIT

54 Lab Hours

Introduction to individual opportunities in development of power, strength, flexibility and/or endurance through weight training. Field trips are not required. Not repeatable. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

Physical Science Courses (PHSCI)

PHSCI 52—THE WAY THINGS WORK 3 UNITS

54 Lecture Hours

Basic physical principles underlying common devices such as cameras, electrical systems, home appliances, and automobiles. General understanding of basic scientific and mechanical principles in order to analyze a wide range of other common devices. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture. **General Education**: (MJC-GE: A)

PHSCI 180—CONCEPTUAL PHYSICAL SCIENCE: A HANDS-ON APPROACH 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of MATH 70 or qualification by the MJC assessment process.

A survey course of selected topics in physics and chemistry to include the scientific method and measurement; kinematics and dynamics of linear motion; work and energy; structure, classification and properties of matter; chemical change; thermal energy; wave theory; light and optics; electricity and magnetism. Physical theory is explained on a conceptual level with emphasis placed on applying physical principles to everyday phenomena. To include a weekly laboratory/activity session designed to provide students with practical experience in applying physical concepts. Designed for elementary education majors, but open to all students. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (C-ID: CHEM 140) (CID: PHYS 140) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

Physics Courses (PHYS)

PHYS 101—GENERAL PHYSICS: MECHANICS 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of MATH 171 or qualification by the MJC assessment process and PHYS 165.

Introduction to calculus-based physics. A course in classical mechanics exploring measurement, kinematics of one and two dimensional motions; Newton's laws of motion; circular motion; work and energy; linear and angular momentum; rotational kinematics and dynamics; statics and gravitation. PHYS 165 prerequisite may be met with proof of satisfactory completion of a high school physics course and completion of the petition process (Please visit the Science, Mathematics, and Engineering Division Office-SCC room 134-for the necessary form for this process). Field trips might be required. Not repeatable. (A-F or P/NP) Lec/Lab. **Transfer**: (CSU, UC) (CC: PHYCS 5A) (C-ID: PHYS 205, PHYS 200S) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

PHYS 102—GENERAL PHYSICS: WAVES THERMODYNAMICS, & OPTICS 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of PHYS 101 and MATH 172 or qualification by the MJC assessment process.

Continuation of calculus-based physics: thermodynamics, wave motion, acoustics and optics. Field trips might be required. Not repeatable. (A-F or P/NP). Lec/Lab. **Transfer**: (CSU, UC) (C-ID: PHYS 200S) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

PHYS 103— GENERAL PHYSICS: ELECTRICITY MAGNETISM, & MODERN PHYSICS 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of PHYS 101 and MATH 172 or qualification by the MJC assessment process.

Continuation of calculus-based physics: electricity, magnetism and modern physics. Field trips might be required. Not repeatable. (A-F or P/NP). Lec/Lab. **Transfer**: (CSU, UC) (CC: PHYCS 5B) (CID: PHYS 200S, PHYS 210) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

PHYS 142—MECHANICS, HEAT, & WAVES 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of MATH 122 or qualification by the MJC assessment process.

Non-calculus introduction to principles and laws of mechanics, thermodynamics and waves. MATH 122 prerequisite may be met with proof of satisfactory completion of a high school algebra 2/trigonometry course and completion of the petition process (please see the science division office for the necessary form for this process). Field trips might be required. Not repeatable. (A-F or P/NP) Lec/Lab. **Transfer**: (CSU, UC) (CC: PHYSC 4A; PHYS 4A+PHYS 4B= PHYS 142+PHYS 143) (C-ID: PHYS 100S, PHYS 105,) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

PHYS 143— ELECTRICITY, MAGNETISM, OPTICS, ATOMIC AND NUCLEAR STRUCTURE 4 UNITS

54.00 Lecture Hours, 54.00 Lab Hours

Prerequisite: Satisfactory completion of PHYS 142.

Continuation of PHYS 142, including electricity, magnetism, light and atomic structure. Field trips might be required. Not repeatable. (A-F or P/NP) Lec/Lab. **Transfer**: (CSU, UC) (CC: PHYCS 4B) (C-ID: PHYS 100S, PHYS 110, **) General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

PHYS 160—DESCRIPTIVE INTRODUCTION TO PHYSICS 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of MATH 89 or MATH 90 or qualification by the MJC assessment process.

A survey course of selected topics in physical inquiry to include mechanics, wave motion, thermodynamics, electromagnetism and modern physics. Physical theory is explored on a conceptual level with emphasis placed on applying physical principles to everyday phenomena. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC PHYCS 1) **General Education**: (MJC-GE: A) (CSU-GE: B1) (IGETC: 5A)

PHYS 165—INTRODUCTORY PHYSICS 4 UNITS

54 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 121 or be eligible for enrollment in MATH 171 as determined by the MJC assessment process.

Introduction to physics through the study of laboratory measurement in selected topic areas to include mechanics, wave motion, thermodynamics, electricity and magnetism. Develops the theoretical and experimental foundation for PHYS 101 and PHYS 142. Field trips are not required. Not repeatable. (A-F or P/NP). Lec/Lab. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

PHYS 180—CONCEPTUAL PHYSICS: A HANDS-ON APPROACH 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of MATH 89 or MATH 90 or qualification by the MJC assessment process.

A survey course of selected topics in physical inquiry to include motion, waves, heat, energy, electricity, magnetism and modern physics. Physical theory is explored on a conceptual level with emphasis placed on applying physical principles to everyday phenomena. To include a weekly activity/laboratory session designed to provide students with practical experience in applying physical concepts. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

Physiology Courses (PHYSO)

PHYSO 101—INTRODUCTORY HUMAN PHYSIOLOGY 4 UNITS

54 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of ANAT 125 and CHEM 143.

Study of physiological principles, function, and homeostasis of the human body in health and disease; at the biochemical, cellular, tissue, organ, and system levels: integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, urinary, digestive, and reproductive. Includes cellular communication, sensory reception, and neural and hormonal control: body movement, oxygen and nutrient delivery, immunity, fluid and electrolyte balance, metabolism and reproductive function. Intended primarily for Nursing, Allied Health, Kinesiology, and other health related majors. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) (CC: BIOL 60; BIOL 60 + BIOL 10 = PHYSO 101 + ANAT 125) (C-ID: BIOL 120B) General Education: (MJC-GE: A) (CSU-GE: B2, B3 IGETC: 5B, 5C)

PHYSO 103—INTRODUCTION TO NEUROSCIENCE 3 UNITS

54 Lecture Hours

Also offered as: PSYCH 103

Prerequisite: Satisfactory completion of PSYCH 101.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

This course introduces the scientific study of the biological bases of behavior and its fundamental role in the neurosciences. Physiological, hormonal, and neurochemical mechanisms, and brain-behavior relationships underlying the psychological phenomena of sensation, perception, regulatory processes, emotion, learning, memory, and psychological disorders will be addressed. The course also notes historical scientific contributions and current research principles for studying brain behavior relationships and mental processes. Ethical standards for human and animal research are discussed in the context of both invasive and non-invasive experimental research. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: PSY 150) **General Education**: (MJC-GE: A) (CSU-GE: B2) (IGETC: 5B)

Plant Science Courses (PLSC)

PLSC 200—INTRODUCTION TO PLANT SCIENCE 3 UNITS

54 Lecture Hours

Introduction to plant science including structure, growth processes, propagation, physiology, growth media, biological competitors, and post-harvest factors of food, fiber, and ornamental plants. Field trips are not required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A) (CSU-GE: B2) (IGETC: 5B)

PLSC 205—FIELD CROPS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Economic importance, adaptation, cultural practices, irrigation, integrated pest management, cost analysis, calendar of operations, and marketing in the production of field crops (including barley, oats, wheat, corn, grain sorghum, alfalfa, rice, dry beans, sugar beets, cotton, and seed crops). Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

PLSC 215—VEGETABLE CROPS 3 UNITS

36 Lecture Hours, 54 Lab Hours

Vegetable crops common to the area; economic importance, cultural sequence, fertilization, irrigation, cultivation, integrated pest control, harvest and related factors; marketing, cost analysis, risks; environmental relationships including moisture, temperature, soil and weather in the production of vegetable crops. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

PLSC 230—FRUIT SCIENCE 3 UNITS

36 Lecture Hours, 54 Lab Hours

Elementary culture of fruit and nut crops including growth and fruiting habits, varieties, characteristics and adaptations; environmental factors influencing local fruit production; pruning and training procedures on local fruit crops. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: A)

PLSC 235—PLANT PROPAGATION/PRODUCTION 3 UNITS

36 Lecture Hours, 54 Lab Hours

Also offered as: EHS 235

Formerly listed as: PLSC 235: Plant Propagation/ Production Planting & Varieties

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EHS 210 or satisfactorily complete PLSC 200.

Plant propagation and production practices with emphasis on nursery operations including sexual and asexual reproduction, planting, transplanting, fertilizing, plant pest and disease control, structures and site layout. Preparation and use of propagating and planting mediums. Use and maintenance of common tools and equipment. Regulations pertaining to plant production. Students will need pruning shears, a grafting knife and a budding knife. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

PLSC 241—VITICULTURE 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete NR 200 and satisfactorily complete PLSC 200.

California grape production; study of table and wine grape varieties, uses, adaptations and products; production practices, propagation and planting; training, pruning and irrigation systems; identification and control of grape pests and diseases. Student is required to design a new vineyard and critique an existing operation. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)

PLSC 250—PLANT NUTRITION AND FERTILIZER 3 UNITS

36 Lecture Hours, 54 Lab Hours

An overview of plant nutrition principles in order to understand amendments, fertilizers, their uses, value, application, and relationship to soils and to crops grown in this area. Deficiency symptoms, pH, soil, water and plant tissue testing, and environmental factors and concerns. Field trips are required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

PLSC 255—PLANT PEST CONTROL **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Study of crop mites and insects, their morphology, identification, life cycles, host and habitat relationships, methods and materials of control. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

PLSC 260—PLANT DISEASE CONTROL **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Study of common local crop diseases, their economic importance, identification, life cycles, host and habitat relationships, and methods of control. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

PLSC 380—WEED CONTROL **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PLSC 200.

Identification, life cycle, and control of common, noxious, and poisonous California weeds. Fundamentals of preventive, cultural, biological, physical, and chemical control methods. An emphasis will be on characteristics of weeds and their identification, and herbicide application. Field trips are required. Not repeatable. Lec/Lab (A-F Only)

Political Science Courses (POLSC)

POLSC 101 — AMERICAN POLITICS **3 UNITS**

54 Lecture Hours

Introduction to United States politics emphasizing the essential institutions, groups, beliefs, behaviors and processes that comprise the American political system at the national, state, and local levels. Special attention to rights and obligations of citizenship. Field trips are not required. Not repeatable. (A-F or P/NP). Lecture. **Transfer**: (CSU, UC) (CC: POLSC 10) (C-ID: POLS 110) **General Education**: (MJC-GE: B) (CSU-GE: b - Group b, D8) (IGETC: 4H)

POLSC 102—THE CONSTITUTION AND RIGHTS OF PERSONS **3 UNITS**

54 Lecture Hours

Formerly listed as: POLSC - 102: The Constitution and Rights of Americans

Introduction to U.S. constitutional government emphasizing the principles and problems of a constitutional system; governmental powers and sources of power at the national, state, and local levels. Special emphasis on the role of the courts and the rights and responsibilities of democratic citizenship, including units on racial and sexual discrimination, the rights of the accused, privacy, political participation, and freedom of expression and religion. Special attention to current constitutional problems at the national and state levels. Field trips are not required. Not repeatable. (A-F or P/NP). Lecture. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: b - Group b, D8) (IGETC: 4H)

POLSC 110—INTERNATIONAL RELATIONS **3 UNITS**

54 Lecture Hours

Introduction to principles and practices of international politics, emphasizing problems of war and peace, foreign policies of major powers, and problems of developing countries. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC POLSC 14) (CID: POLS 140) **General Education**: (MJC-GE: B) (CSU-GE: D8) (IGETC: 4H)

POLSC 111—WAR & PEACE: FROM LENIN TO AL QAEDA **3 UNITS**

54 Lecture Hours

Survey of major events and personalities in the history of international politics since 1917. Topics include Origins of WWII, the rise of Communism; key personalities - Lenin, Stalin, Churchill, Truman; origins and demise of cold war, role of nuclear weapons, and the rise of terrorism. Field trips are not required. (A-F or P/NP) **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D8) (IGETC: 4H)

POLSC 120— CALIFORNIA POLITICS AND PROBLEMS **3 UNITS**

54 Lecture Hours

Analysis of government institutions, politics, issues and political behavior in California in constitutional, social, economic and cultural perspective. Included are studies of issues confronted by U.S. and California state, county, city and regional governments including political representation, resources and energy, land use and planning, population growth, poverty, education, criminal justice, pollution, budgets and taxation. Special attention to the rights and obligations of citizenship. Field trips are not required. Not repeatable. (A-F or P/NP). Lecture. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: b - Group b, D8) (IGETC: 4H)

POLSC 130—POLITICAL THEORY **3 UNITS**

54 Lecture Hours

Studies major political theorists and their analysis of political concepts, including democracy, freedom, authority, equality, and political leadership. Investigates how political theory is practically relevant and connected to current political issues. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CID: POLS 120) **General Education**: (MJC-GE: B) (CSU-GE: D8) (IGETC: 4H)

POLSC 131—AMERICAN POLITICAL THOUGHT **3 UNITS**

54 Lecture Hours

An introduction to American political thought and culture from the European discovery of the New World to the preset. Detailed study of the Puritans, Jefferson, Adams, Tocqueville, Harriet Jacobs, King, Arendt, and others. Topics covered include republicanism, conformity, slavery, suffrage, civil disobedience, and neoconservativism. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D8) (IGETC: 4H)

POLSC 140—COMPARATIVE POLITICS **3 UNITS**

54 Lecture Hours

Comparative survey of major totalitarian, authoritarian, and democratic political systems. Emphasis on the United Kingdom, France, Germany, Russia, the People's Republic of China, Japan, and selected developing countries. Field trips are not required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC)(CID: POLS 130) (CC: POLSC 16) **General Education**: (MJC-GE: B) (CSU-GE: D8) (IGETC: 4H)

POLSC 165—POLITICAL SCIENCE RESEARCH METHODS 3 UNITS

54 Lecture Hours

This course surveys the research methods employed in political science. Research design, experimental procedures, descriptive methods, instrumentation, and the collection, interpretation, and reporting of research data, and the ethics of research are introduced. Field trips are not required. Not repeatable. (A-F Only) Lecture. **Transfer**: (CSU) (C-ID: POLS 160) **General Education**: (MJC-GE: B)

POLSC 180—HUMAN RIGHTS 3 UNITS

54 Lecture Hours

An introduction to the study of the origins, development, and recognition of fundamental human rights. Examines the role that transnational advocacy networks, leaders, citizens, governments, the United Nations, international agreements, criminal justice mechanisms, liberation technology, and humanitarian intervention play in relation to the protection of human rights. Special attention is given to politics in connection to current global human rights issues, such as human trafficking, torture, refugee rights, genocide, health care, environmental rights, and freedom of expression. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D8) (IGETC: 4H)

POLSC 195—POLITICAL INTERNSHIP DISCUSSION 1 UNIT

18 Discussion Hours

Formerly listed as POLSC - 195: Internship in Political Science,POLSC - 195: Internship in Political Science Discussion

Corequisite: Concurrent enrollment in POLSC 196.

Examines political internship experiences of students concurrently enrolled in POLSC 196. Class meetings are for sharing learning experiences, analyzing issues related to public service, and collectively addressing issues associated with the internships. Field trips are not required. (A-F or P/NP) Discussion. Not repeatable. **Transfer**: (CSU)

POLSC 196—POLITICAL INTERNSHIP 1 UNIT

54 Lab Hours

Formerly listed as: POLSC - 196ABC: Internship in Political Science

Corequisite: Concurrent enrollment in POLSC 195.

Supervised internship in a federal, state, or local government office; courthouse; or political organization. Field trips are not required.(A-F or P/NP) Lab. Not repeatable. **Transfer**: (CSU)

Psychology Courses (PSYCH)

PSYCH 51—PSYCHOLOGY IN EVERYDAY LIFE 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 49.

Principles of human behavior and personality development, and their application to today's world, including personal and job-related problem solving skills. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **General Education**: (MJC-GE: B)

PSYCH 101—GENERAL PSYCHOLOGY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Psychology is the scientific study of behavior and mental processes. The content focuses on the exploration of major psychological theories and concepts, methods, and research findings in psychology. Topics include the biological bases of behavior, perception, cognition and consciousness, learning, memory, emotion, motivation, development, personality, social psychology, psychological disorders and therapeutic approaches, and applied psychology. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC PSYCH 1) (C-ID: PSY 110) **General Education**: (MJC-GE: B) (CSU-GE: D9) (IGETC: 4I)

PSYCH 102—RESEARCH METHODS 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of PSYCH 101 and MATH 134.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

This course surveys various psychological research methods with an emphasis on research design, experimental procedures, descriptive methods, instrumentation and the collection, analysis, interpretation and reporting of research data. Research design and methodology will be examined through a review of research in a variety of subdisciplines of psychology. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC PSYCH 15) (C-ID: PSY 200)

PSYCH 103—INTRODUCTION TO NEUROSCIENCE 3 UNITS

54 Lecture Hours

Also offered as: PHYSO 103: Introduction to Neuroscience

Prerequisite: Satisfactory completion of PSYCH 101.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

This course introduces the scientific study of the biological bases of behavior and its fundamental role in the neurosciences. Physiological, hormonal, and neurochemical mechanisms, and brain-behavior relationships underlying the psychological phenomena of sensation, perception, regulatory processes, emotion, learning, memory, and psychological disorders will be addressed. The course also notes historical scientific contributions and current research principles for studying brain-behavior relationships and mental processes. Ethical standards for human and animal research are discussed in the context of both invasive and non-invasive experimental research. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: PSY 150) **General Education**: (MJC-GE: A) (CSU-GE: B2) (IGETC: 5B)

PSYCH 104—INTRODUCTION TO SOCIAL PSYCHOLOGY 3 UNITS

54 Lecture Hours

Formerly listed as: PSYCH - 104: Social Psychology

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PSYCH 101 and satisfactorily complete ENGL 101.

This course considers individual human behavior in relation to the social environment. The power of the situation, other individuals, and the social group will be examined. Emphasized topics include: aggression, prejudice and stereotypes, interpersonal attraction, attitudes and attitude change, conformity, group phenomena, gender roles,

cultural norms, person perception, and social cognition. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: PSY 170) **General Education**: (MJC-GE: B) (CSU-GE: D9) (IGETC: 4I)

PSYCH 105—ABNORMAL PSYCHOLOGY **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PSYCH 101.

This course introduces the scientific study of psychopathology and atypical behaviors, broadly defined. Students investigate abnormal behavior from a variety of perspectives including biological, psychological, and sociocultural approaches. An integrative survey of theory and research in abnormal behavior, and intervention and prevention strategies for psychological disorders are also introduced. Field trips are required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: PSY 120) (CC:PSYCH 24) **General Education**: (MJC-GE: B) (CSU-GE: D9) (IGETC: 4I)

PSYCH 110—HUMAN SEXUALITIES **3 UNITS**

54 Lecture Hours

Study of human sexualities from a biopsychosocial perspective. The intersections of biology, culture, history, race, ethnicity, social class, sexual orientation and gender as they relate to sexualities will be explored throughout the course. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC PSYCH 5) (C-ID: PSY 130) **General Education**: (MJC-GE: E) (CSU-GE: E) (IGETC: 4I)

PSYCH 111—PSYCHOLOGY OF GENDER **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PSYCH 101.

A survey of major factors in the development of gender identities and gender roles as they relate to the field of psychology, including: psychological, sociological, biological and cultural influences. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D4, D9) (IGETC: 4D, 4I)

PSYCH 118—PHARMACOLOGY OF ABUSED SUBSTANCES **3 UNITS**

54 Lecture Hours

Also offered as: HUMSR - 118: Pharmacology of Abused Substances

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete HUMSR 116 or satisfactorily complete PSYCH 101.

An introduction to psychopharmacology and the process of drug addiction. Topics include classification of abused and psychotherapeutic drugs, basic principles of pharmacology, behavioral and physiological effects of drugs, major neurotransmitter systems and how they are influenced by drugs. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU)

PSYCH 130—PERSONAL ADJUSTMENT **3 UNITS**

54 Lecture Hours

This course is designed with an applied focus for students interested in how psychology is used in everyday life and is related to other social sciences. The course surveys different psychological perspectives and theoretical foundations and how these are applied across a person's life taking into account the influence of factors such as culture, gender, ethnicity, historical cohort, and socio-economic status. A broad understanding of how scientists, clinicians and practitioners study and apply psychology is emphasized. Field trips are not required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU) (CC PSYCH 30) (C-ID: PSY 115) **General Education**: (MJC-GE: E) (CSU-GE: E)

PSYCH 141—HUMAN LIFESPAN DEVELOPMENT **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PSYCH 101 and satisfactorily complete ENGL 101.

Introduction to the scientific study of human development from conception through death. Examines the interplay of biological, psychological, social, and cultural forces on the developing human being. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (C-ID: PSY 180) **General Education**: (MJC-GE: E) (CSU-GE: E) (IGETC: 4I)

Reading Courses (READ)

READ 21—VOCABULARY DEVELOPMENT **3 UNITS**

54 Lecture Hours

Course is designed to improve the vocabulary of students who are functioning at the precollegiate level. (A-F Only) Lecture. Not repeatable.

READ 40—READING COMPREHENSION **3 UNITS**

54 Lecture Hours

Provides students the opportunity to improve their reading comprehension of precollegiate materials. (A-F Only) Lecture. Not repeatable.

READ 62—COLLEGE VOCABULARY **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to Complete or assess above READ 82.

Development of college level vocabulary. Use of context clues and structural analysis emphasized. (A-F Only) Lecture. Not repeatable.

READ 82 —COLLEGE READING - COMPREHENSION **3 UNITS**

54 Lecture Hours

Recommended for Success: Satisfactory completion of READ 40 or qualification by the MJC assessment process.

Designed to improve student's comprehension and retention of college level materials. (A-F Only) Lecture. Not repeatable.

READ 184—CRITICAL READING **3 UNITS**

54 Lecture Hours

Recommended for Success: Satisfactory completion of READ 82 or recommendation of the reading assessment.

Reading for inferred ideas, evaluation of ideas, tone, mood, and style. Discussion of application of reader's knowledge to reading material. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

Real Estate Courses (RLES)

RLES 380—REAL ESTATE PRINCIPLES 3 UNITS

54 Lecture Hours

This beginning course in real estate fundamentals is required for the real estate salesperson's license. The course covers Real estate principles and laws in California including: terminology and definitions, real estate law, ownership rights, contracts, deeds, land titles, liens, escrows, leases, financing, land descriptions, mandatory disclosures, terminology, ethics, fair housing and licensing, real estate investment and career opportunities, as well as other subjects vital to a basic understanding of real estate are covered. This course is required to be eligible to sit for the California Real Estate Salesperson exam. Field trips might be required. (A-F or P/NP) Not repeatable.

RLES 381—REAL ESTATE PRACTICES 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete RLES 380.

This course covers the day-to-day activities of the real estate brokerage business from the viewpoint of both the broker and the sales staff. It gives practical training in such topics as: listing, prospecting, advertising, disclosures, selling escrow procedures, financing, exchanges, property management and leases, land utilization and development, public relations and professional ethics and fair housing in the real estate business. This course is required to be eligible to sit for the California Real Estate Salesperson's License Exam. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable.

RLES 382—LEGAL ASPECTS OF REAL ESTATE 1 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete RLES 380.

This course is a study of California real estate laws. Topics include: the principal legal aspects of ownership, acquisition and **Transfer** of real property, legal descriptions, contracts, escrow procedures, forms of trust and foreclosure, liens, and restrictions, legal instruments, property ownership and management, real estate security devices, property rights, liens and homesteads, landlord-tenant law, land use controls, and title insurance and escrow. Completion of the course applies toward the education requirements for the California Department of Real Estate License examination. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable.

RLES 384—REAL ESTATE FINANCE 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete RLES 380 or satisfactorily complete RLES 381.

This course is an analysis of real estate financing, including regulations, policies and procedures applicable to financing residential, multi-family, commercial and special purpose properties. Special attention to the money market, sources of funds and FHA and VA loans as factors in property financing. The course applies toward the educational requirements for the California Real Estate License Examination. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable.

RLES 385—REAL ESTATE APPRAISAL, RESIDENTIAL 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete RLES 380 and/or satisfactorily complete RLES 381.

This course covers the purposes of appraisals, examination of the appraisal process, and the different approaches, methods and techniques used to determine property value on cost, sales comparison, and income basis. Consideration of neighborhood and site analysis, residential style, and functional utility, three approaches to value, reconciliation of value indicators, and Uniform Standards of Professional Practice. The course emphasizes residential single family properties and applies toward the educational requirement for the California Real Estate License. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable.

RLES 392—BASIC ESCROW PROCEDURES 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete RLES 380 and/or satisfactorily complete RLES 381.

This course covers the functions and responsibilities of the escrow holder, including actual preparation of escrow instructions and documents in a typical real estate transaction. Audit, disbursement, the issuance of closing statements and analysis of title insurance policies are covered. This course counts toward the education requirement for the California Real Estate license exam. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable.

Recreation Courses (REC)

With increased urbanization, expanded leisure time, and public awareness of the value of recreational activities, trained leaders are needed to organize and administer programs in a variety of settings. Since most jobs in Recreation require a four-year college degree, students in the Recreation program at MJC are encouraged to follow the four-year college Transfer pattern and also to complete theoretical and practical recreation classes. Students are also advised to take electives in the fields of art, drama, music, sports, and activities. Considerable flexibility in the Recreation program is allowed in designing an individualized program to strengthen career needs and specialization areas selected by the student.

REC 110 —SOCIAL RECREATION LEADERSHIP 3 UNITS

54 Lecture Hours

Leadership techniques and strategies of recreational activities with an emphasis on the integration of individuals into group programs. Field trips might be required.(A-F or P/NP) Lecture **Transfer**: (CSU) Not repeatable.

Respiratory Care Courses (RSCR)

RSCR 220—INTRODUCTION TO RESPIRATORY CARE PRINCIPLES 5 UNITS

72 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of CHEM 143.

Corequisite: Concurrent enrollment in RSCR 230.

Limitations on Enrollment: Enrollment limited to students admitted to the respiratory care program.

Covers basic physical principles necessary for the practice of respiratory care to include the following: medical terminology, fundamentals of general bedside patient care skills, underlying physical principles of respiratory care equipment, and indications for the use of oxygen and aerosol therapy and related equipment. Materials fee required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

RSCR 222—CARDIOPULMONARY ANATOMY AND PHYSIOLOGY 3 UNITS

54 Lecture Hours

Formerly listed as RSCR - 222: Basic Cardiopulmonary Anatomy and Physio

Prerequisites: Satisfactory completion of AP 150 or ANAT 125 and PHYSO 101

Structure and functions of the pulmonary and cardiovascular systems. Application of laws of gas and fluid physics to the cardiopulmonary system. Field trips may be required.

Lecture. (A-F Only)(Fall) Not repeatable. **Transfer**: (CSU)

RSCR 224—RESPIRATORY CARE THEORY 2 5 UNITS

72 Lecture Hours, 54 Lab Hours

Formerly listed as RSCR 203

Prerequisites: Satisfactory completion of RSCR 220.

Theoretical foundation for basic treatment modalities utilized in respiratory care. Topics covered include: hyper-inflation therapies, chest physical therapy, basic airway care and cardiopulmonary pharmacology. Associated equipment will be covered during scheduled labs. Field trips might be required. Lecture/Laboratory. Materials fee required. (Spring) (A-F Only)(Fall) Not repeatable. **Transfer**: (CSU)

RSCR 230—CLINICAL 1 1 UNIT

54 Lab Hours

Corequisite: Concurrent enrollment in RSCR 220.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AP 150.

Clinical experience in oxygen therapy, aerosol-humidity therapy and other basic respiratory care modalities used in area hospitals. Field trips are required. (P/NP Only) Not repeatable. Lab. **Transfer**: (CSU)

RSCR 232—CLINICAL 2 3.5 UNITS

189 Lab Hours

Prerequisite: Satisfactory completion of RSCR 230.

Corequisite: Concurrent enrollment in RSCR 222 and RSCR 224.

Clinical experience in the various routine respiratory care procedures and the equipment used in area hospitals. Attention is paid to the student performing critical evaluations of current therapy and the application of clinical practice guidelines. Field trips might be required. (P/NP Only) Not repeatable. **Transfer**: (CSU)

RSCR 240—ADVANCED CARDIOPULMONARY PHYSIOLOGY 4.5 UNITS

81 Lecture Hours

Prerequisite: Satisfactory completion of RSCR 222 and RSCR 224.

Limitations on Enrollment: Enrollment limited to students who are accepted into the Respiratory Care Program.

Advanced cardiopulmonary physiology and diagnostics for the second-year respiratory care student. Includes advanced arterial blood gas analysis, indices of oxygenation, chest x-ray interpretation, hemodynamic monitoring, laboratory testing, capnography, and ECG interpretation with an emphasis on clinical setting application. Also includes discussion of various pathologies caused by cardiovascular conditions. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

RSCR 242—CRITICAL CARE PROCEDURES 4.5 UNITS

63 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of RSCR 222, RSCR 224, and MICRO 101.

Limitations on Enrollment: Enrollment limited to students who are accepted into the Respiratory Care Program.

Theory and application of critical care procedures for second year respiratory care students. Advanced theory and application of mechanical ventilators, associated pathophysiology and pharmacology, microbiological issues in respiratory care; application of ECG interpretation and chest x-ray interpretation. Field trips are not required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU)

RSCR 244—NEONATAL-PEDIATRIC RESPIRATORY CARE 2 UNITS

36 Lecture Hours

Prerequisites: Satisfactory completion of RSCR 240 and 242.

Introduction to respiratory care for the neonatal and pediatric patient. Topics include: fetal/neonatal development,resuscitation, disease pathophysiology, critical care, and current neonatal and pediatric respiratory care procedures and modalities. Field trips might be required. Lecture. (A-F Only) **Transfer**: (CSU)

RSCR 246—CURRENT ISSUES IN RESPIRATORY CARE 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of RSCR 240 and RSCR 242.

Limitations on Enrollment: Enrollment limited to students who are admitted to Respiratory Care program.

Introduction to specialty areas of respiratory care. Review of pathophysiology of respiratory disease processes and treatment. Includes a comprehensive review to prepare students for state and national examinations. Field trips might be required. (A-F Only) Lecture. Not repeatable. **Transfer**: (CSU)

RSCR 250—CLINICAL 3 3.5 UNITS

189 Lab Hours

Formerly listed as RSCR 213

Prerequisites: Satisfactory completion of RSCR 232.

Concurrent Enrollment: RSCR 240 and 242

Limitations on Enrollment: Enrollment limited to students accepted into the Respiratory Care Program.

Clinical experience in the various critical care respiratory procedures and the equipment used for these procedures in area hospitals. Field trips are not required. Not repeatable. (P/NP Only). Lab. **Transfer**: (CSU)

RSCR 251—NEONATAL AND PEDIATRIC CLINICAL PRACTICE 1 0.5 UNITS

27 Lab Hours

Prerequisites: Satisfactory completion of RSCR 242 and RSCR 244

This course provides an introduction to respiratory care clinical practice for neonatal and pediatric patients in acute critical and chronic care environments. Field trips are not required. Not repeatable. (P/NP Only) Lab. **Transfer**: (CSU)

RSCR 252—PHYSICIAN ROUNDS FOR RESPIRATORY CARE 0.5 UNITS

27 Lab Hours

Prerequisite: Satisfactory completion of RSCR 242.

Limitations on Enrollment: Enrollment limited to students accepted into the Respiratory Care program.

Opportunity for interaction between physicians and respiratory care students to determine the appropriateness of a respiratory care plan; includes use of computer instruction in formulating adequate care plans and use of respiratory care protocols. Field trips are required. Not repeatable. (P/NP Only) Lab. **Transfer**: (CSU)

RSCR 253—NEONATAL AND PEDIATRIC CLINICAL PRACTICE 2 0.5 UNITS

27 Lab Hours

Prerequisites: Satisfactory completion of RSCR 242 and RSCR 244

Additional respiratory care clinical practice in perinatal, neonatal and pediatric care. Field trips might be required. Laboratory. (Summer)(P/NP Only) Not repeatable. **Transfer**: (CSU)

RSCR 255—CLINICAL 4 4.5 UNITS

243 Lab Hours

Prerequisite: Satisfactory completion of RSCR 244.

Corequisite: Concurrent enrollment in RSCR 246.

Continued clinical experience in critical care units and introduction to clinical care in the neonatal intensive care unit as well as alternative site respiratory care. Field trips might be required. (P/NP Only) Lab. Not repeatable. **Transfer**: (CSU)

RSCR 257—CLINICAL PRECEPTORSHIP 2.5 UNITS

135 Lab Hours

Prerequisite: Satisfactory completion of RSCR 244

Corequisite: Concurrent enrollment in RSCR 246.

Limitations on Enrollment: Enrollment limited to students admitted into the Respiratory Care program.

Four week clinical preceptorship in which student must demonstrate proficiency in all areas of clinical respiratory care practice. Field trips are not required. (P/NP Only) Lab. Not repeatable. **Transfer**: (CSU)

RSCR 405—HEALTHCARE LEADERSHIP AND OPERATIONS MANAGEMENT 3 UNITS

54 Lecture Hours

Limitations on Enrollment: Enrollment limited to students accepted into the Respiratory Care Baccalaureate Degree Program.

Principles, theories and models of leadership and management will prepare students for leadership roles in respiratory care. During the course, students will examine the challenges of decision making, health care access, quality, budget development and cost containment, and the disparities in healthcare reform. Legal and ethical issues are integrated into classroom discussions. Field trips are not required. Not repeatable. (A-F Only) Lecture.

RSCR 410—CRITICAL REVIEW OF HEALTHCARE RESEARCH 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of RSCR 405.

Limitations on Enrollment: Enrollment limited to students accepted into the Respiratory Care Baccalaureate Degree Program.

This course provides the forum for the student to identify and explore current events, knowledge, and skills relevant to the practice of Pulmonary and Cardiovascular Medicine. Students are expected to evaluate and review scholarly and peer-reviewed research, describe influencing factors, and critically determine the quality of the research being presented. The students will learn to use research databases, research methodologies, elements in a research directed review, and APA formatting. Individual and group presentations of critiqued research are integrated into the course. Field trips are not required. Not repeatable. (A-F Only) Lecture.

RSCR 415—DISEASE MANAGEMENT AND HEALTHCARE PROMOTION 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of RSCR 410.

Limitations on Enrollment: Enrollment limited to students enrolled in the Respiratory Care Baccalaureate Degree program.

This course will present the underlying principles that characterize disease management. The student will discover the cost drivers of disease, concepts of chronic disease management, and healthcare value. The course will focus on current evidence-based practice, guidelines, and competencies necessary for patient care which require a coordinated approach to healthcare management. Field trips are not required. Not repeatable. (A-F Only) Lecture.

RSCR 420—ADVANCED PHARMACOLOGY AND CRITICAL CARE 3 UNITS

54 Lecture Hours

Limitations on Enrollment: Enrollment limited to students accepted into the Respiratory Care Baccalaureate Degree Program.

This course is designed to enhance the skills of respiratory care practitioners in assessment and management of critically ill neonate, pediatric, and adult patients. Students will learn the role of protocols in critical care and develop aptitude in ethical and legal issues related to trauma, withdrawal of life-support, comfort and palliative care, and end of life decisions. Materials fee required. Field trips are not required. Not repeatable. (A-F Only) Lecture.

RSCR 425—PULMONARY DIAGNOSTICS, REHABILITATION, AND SLEEP 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of RSCR 420.

Limitations on Enrollment: Enrollment limited to students accepted into the Respiratory Care Baccalaureate Degree Program.

This course provides information needed to enhance the knowledge, competency, and skill of respiratory care practitioners in pulmonary function testing, endobronchial ultrasound, thoracentesis, airway thermoplasty, sleep technology diagnostics, and pulmonary rehabilitation. Field trips might be required. Not repeatable. (A-F Only) Lecture.

RSCR 430—CAPSTONE RESEARCH 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of RSCR 425.

Limitations on Enrollment: Enrollment limited to students accepted into the Respiratory Care Baccalaureate Degree Program.

As the final component to the Baccalaureate Degree Program in Respiratory Care, this course provides the students with the opportunity to synthesize and apply prior learning, practice experience, and knowledge gained in this program. Students will complete a real world project under the direction of a faculty member. The project will be based on a clinical population, disease management aspect, a management or leadership issue current to their employment or experience. The project will provide input to their classmates of the importance of this research and how it improves patient outcomes. The project will be both written and orally given to the class. The student will have weekly discussions via groups of current topics in the research literature that relate to Respiratory Care. This will be broad and not related to individual research. Progress in the research project will be monitored throughout the semester. Field trips might be required. Not repeatable. (A-F Only) Lecture.

Sheet Metal Courses (SM)

The Vocational Sheet Metal courses teach layout, measurement, forming, and installation as well as the mathematics required for sheet metal fabrication. Curriculum is developed and closely monitored in consultation with local air conditioning and heating contractors.

SM 331—SHEET METAL AND INSTALLATION 1 3 UNITS

54 Lecture Hours

Introduction to the tools and machinery used in the sheet metal trades. Training in the procedures using patterns, cutting, making seams, and riveting metals. Safety in sheet metal shop. Career opportunities in the sheet metal trades. Field trips might be required. Not repeatable. (A-F or P/NP). Lecture.

SM 332—VOCATIONAL SHEET METAL AND INSTALLATION 2 3 UNITS

54 Lecture Hours

Formerly listed as SM 32

Prerequisite: Satisfactory completion of SM 331

Techniques perfected in turning, burring, raising, forming, crimping, and beading: short method of pattern development. Parallel line and radial line development. Linear and geometric measure. Field trips might be required. Lecture. (A-F Only) Not repeatable.

Sign Language Courses (SIGN)

SIGN 125—ASL: BEGINNING COMMUNICATION WITH THE DEAF 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Introduction to American Sign Language is designed to provide basic conversational skill in the language used among Deaf people in the United States. This course is equivalent to the first two years of high school ASL. Field trips might be required. Not repeatable. (A-F or P/NP) **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

SIGN 126—ASL: INTERMEDIATE COMMUNICATION WITH THE DEAF 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of SIGN 125.

Communicating with and interpreting for the Deaf at an intermediate conversational level using American Sign Language. Field trips might be required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A)

SIGN 127—ASL: ADVANCED COMMUNICATION WITH THE DEAF 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of SIGN 126.

Extensive development of and practice in American Sign Language for those who would like to interpret for the Deaf or for those who want to become professionals working in the Deaf community. Field trips might be required.(A-F or P/NP) Lecture. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A) Not repeatable.

Social Science Courses (SOCSC)

SOCSC 58—STUDENT LEADERSHIP DEVELOPMENT 2 UNITS

36 Lecture Hours

Theory, practice, and application of leadership principles. Prepares students for productive involvement in community service, college activities, and civic governance. Designed especially, but not exclusively, for students participating in student government and club activities. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. (CC: GUIDE 51-formerly GUIDE 115) **Local Requirement**: (Activities)

SOCSC 105—WOMEN'S STUDIES 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Using a multidisciplinary approach, this course explores political, economic, social, cultural, and historical issues from a feminist and global perspective. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B, C) (CSU-GE: D0, D4) (IGETC: 4D, 4J)

SOCSC 109—INTRODUCTION TO EDUCATION PRACTICUM IN TUTORING 3 UNITS

54 Lab Hours

Formerly listed as: SOCSC - 109: Intro Education - Practicum in Tutoring

Limitations on Enrollment: Enrollment limited to students who provide fingerprint and TB clearance.

Orientation to the teaching profession. Designed for prospective elementary, secondary, or college teachers but open to all. Students are required to observe in an appropriate educational setting. Partially meets field experience requirement for teaching credential program at CSU Stanislaus. Fingerprint Clearance and TB Clearance is required. Field trips might be required. Lab. Not repeatable. **Transfer**: (CSU, UC)

SOCSC 110—INTRODUCTION TO ELEMENTARY EDUCATION 3 UNITS

54 Lecture Hours

Formerly listed as: SOCSC - 110: Introduction to Education

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Orientation to the teaching profession. Designed for prospective elementary and middle school teachers, but open to all students. Students are required to observe and participate in community classrooms. Meets field experience requirement for teaching credential program. Fingerprint Clearance and TB Clearance is required. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC EDUC 11) (CID: EDUC 200) **General Education**: (MJC-GE: B)

SOCSC 120ABC— COMPUTER APPLICATIONS IN THE SOCIAL SCIENCES 1-3 UNITS

A=154 Lecture Hours, B= 18 Lecture Hours, 54 Lab Hours, C= 36 Lecture Hours, 108 Lab Hours

Application of computers to social sciences activities. Writing, research, data collection, simulations, survey and laboratory research. Field trips might be required. May be repeated to six units maximum. Lecture or Laboratory. Not repeatable. **Transfer**: (CSU)

SOCSC 154 – MOVIES WITH A MESSAGE 3 UNITS

54 Lecture Hours

A thematic film course aimed at using the medium of film to broaden the awareness of current societal and global issues, focusing on different topics semester to semester. Selected sequences of feature films, documentaries, unusual foreign and domestic releases will explore how film makers depict aspects of history, culture, religion, race, gender, class, ideology and other issues in a global perspective. Course will cover related elements of film style and theory, such as the relationship of subject to style, form and function. Field trips might be required. Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1)

Sociology Courses (SOCIO)

SOCIO 101—INTRODUCTION TO SOCIOLOGY 3 UNITS

54 Lecture Hours

An introductory study of the basic concepts, theoretical approaches, and methods of sociology. Topics typically include the analysis and explanation of social structure, group dynamics, socialization and the self, social stratification, culture and diversity, social change, and globalization. Course objectives include the ability to apply sociological ideas to everyday life. Field trips might be required. (A-F or P/NP) Not repeatable. **Transfer**: (CSU, UC) (CC SOCIO 1) (C-ID: SOCI 110) **General Education**: (MJC-GE: B) (CSU-GE: D0) (IGETC: 4J)

SOCIO 102—SOCIAL PROBLEMS IN THE UNITED STATES 3 UNITS

54 Lecture Hours

The experiences of caregivers and patients from several ethnic minority groups. The study of contemporary social problems within the American society emphasizing, among other topics, alcohol and drugs, crime and violence, family problems, power, race, and gender inequalities. Construction of possible solutions to social problems will also be discussed. Field trips might be required. Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC SOCIO 2) (C-ID: SOCI 115) **General Education**: (MJC-GE: B) (CSU-GE: D0) (IGETC: 4J)

SOCIO 105— INTRODUCTION TO STATISTICS FOR THE SOCIAL & BEHAVIORAL SCIENCES 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of MATH 89 or MATH 90 or qualification by the MJC assessment process.

Introduction to statistics for students in the social and behavioral sciences. Topics will include descriptive and inferential statistics, scales of measurement, measures of central tendency and variability, correlation and regression, probability distributions (including the normal, t, and chi-square distributions), and hypothesis testing. Course will include application of statistical software to data from the social and behavioral sciences. Field trips are not required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (C-ID: SOCI 125) **General Education**: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

SOCIO 125—SOCIOLOGY OF THE FAMILY 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Sociological analysis of the family, including historical and recent changes, present nature and the socio-cultural and economic forces shaping these changes. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC SOCIO 12) (C-ID: SOCI 130) **General Education**: (MJC-GE: B) (CSU-GE: D0) (IGETC: 4J)

SOCIO 150—ETHNICITY AND CULTURE IN AMERICA 3 UNITS

54 Lecture Hours

A multidisciplinary study of ethnic and racial groups in the United States including Asian-Americans, African-Americans, Hispanics, among others. Emphasizes emergence, change, marginality, and integration of major ethnic groups in the United States. Field trips might be required. Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC SOCIO 5) (C-ID: SOCI 150) **General Education**: (MJC-GE: B) (CSU-GE: D0, D3) (IGETC: 4J)

SOCIO 154— AFRICAN-AMERICAN CULTURES AND COMMUNITIES 3 UNITS

54 Lecture Hours

A sociological exploration of the social and historical forces shaping contemporary African-American experiences and their multiple statuses in American society. Effects of stratification, conflict and change as well as the historical and current roles of the family within dynamic communities are emphasized. Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D0, D3) (IGETC: 4J)

SOCIO 156—MEXICAN CULTURE IN THE UNITED STATES 3 UNITS

54 Lecture Hours

Contemporary Mexican-American Culture, problems and contributions, origins and nature. Intergroup contacts and conflicts. Field projects concern Mexican-American assimilation within the region. Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: B) (CSU-GE: D0, D.3) (IGETC: 4J)

SOCIO 400—MEDICAL SOCIOLOGY: HEALTH AND DIVERSITY 3 UNITS

54 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who are admitted into the Respiratory Care Baccalaureate Degree program.

Advanced critical analysis of the ethos of contemporary western medicine. In particular critical examination of disparity in medical access, care, and provision within ethnic groups is unpacked. Determinants of health and illness contemporary theories, reconfiguring the body, the distinction between disease and illness, the sick roll- socio-economics of disease and care, medicalization theory, feminist theory and health (women's embodiment of disease), - labeling theory, healing roles, emotional labor, and power dimensions within the health care system are examined within the framework of our stratified and multicultural society are critically measured. Field trips might be required. Not repeatable. Lecture.(A-F Only)

Spanish Courses (SPAN)

SPAN 45 XABC —PRACTICAL SPANISH FOR THE PROFESSIONS 0.5-3 UNITS

X= 9 Lecture Hours, A= 18 Lecture Hours, B= 36 Lecture Hours, C=54 Lecture Hours

Conversational Spanish for people working with the Spanish-speaking in the following areas: health, education, law enforcement, social work, agriculture, construction, public safety, and business. Occupational topics vary from semester to semester. May be repeated for credit as topic changes. A student may take Spanish for Nursing one semester and learn vocabulary appropriate to the nursing profession and the following semester may take Spanish for Law Enforcement and learn vocabulary appropriate for law enforcement officers. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable.

SPAN 51—INTRODUCTORY SPANISH 1 3 UNITS

54 Lecture Hours

Slow-paced, non-Transferable course designed for people who have never studied a foreign language before, especially Spanish. Basic Spanish grammar and pronunciation. Field trips might be required.(A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CC SPAN 10A) **General Education**: (MJC-GE: C)

SPAN 52—INTRODUCTORY SPANISH 2 3 UNITS

54 Lecture Hours

Formerly listed as SPAN 52 - Introduction to Practical Spanish 2

Prerequisite: Satisfactory completion of SPAN 51 or equivalent introductory course.

Slow-paced, non-Transferable course designed for people who wish to continue from SPAN 51. Basic Spanish grammar and pronunciation. Field trips might be required. Lecture. Not repeatable. **General Education**: (MJC-GE: C)

SPAN 101—SPANISH 1 5 UNITS

90 Lecture Hours

Fundamentals of spoken and written Spanish. Equivalent to the satisfactory completion of two years high school Spanish. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC SPAN 1A) (C-ID: SPAN 100) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

SPAN 102—SPANISH 2 5 UNITS

90 Lecture Hours

Prerequisite: Satisfactory completion of SPAN 101.

Continuation of Spanish 101. Emphasis on preterite and imperfect tenses of the indicative mood. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC SPAN 1B)) (C-ID: SPAN 110)) (C-ID: SPAN 110) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A)

SPAN 103—SPANISH 3 4 UNITS

72 Lecture Hours

Prerequisite: Satisfactory completion of SPAN 102.

Continuation of Spanish 102. Includes Spanish grammar, conversation, reading and composition. Also includes reading and discussion in Spanish of selections from literary works of Spanish and Latin American writers. Field trips might be required. Not repeatable. (A-F or P/NP) **Transfer**: (CSU, UC) (CC: SPAN 2A) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A)

SPAN 104—SPANISH 4 4 UNITS

72 Lecture Hours

Prerequisite: Satisfactory completion of SPAN 103.

Review and expansion of grammatical structures covered in Spanish 101-103. Includes a review of the uses of the subjunctive and the reading and discussion of literary works of Spanish and Latin American writers. Students will continue to demonstrate the ability to think critically by analyzing linguistic structures and making cross-cultural comparisons. Field trips might be required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (CC: SPAN 2B) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A)

SPAN 109—SPANISH FOR SPANISH SPEAKERS 1 5 UNITS

90 Lecture Hours

Formerly listed as: SPAN - 109: Span for Span Speakers: Fundamentals

Recommended for Success: Before enrolling in this course, students are strongly advised to understand and be able to communicate in Spanish with near native fluency. Some formal academic study in the language is also desired.

The first of two courses intended for Native or Heritage Spanish speakers who already speak, read and write in Spanish at varying levels and with some academic study in the language. This course will focus on: the review of major elements of Spanish grammar, vocabulary acquisition, and student improvement of oral and written communication skills. Through the study of selected readings, students will expand on their own experiences and explore other Spanish Speaking cultures. Equivalent to the satisfactory completion of two years high school Spanish. Taught in Spanish. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC)(CID: SPAN 220) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

SPAN 110—SPANISH FOR SPANISH SPEAKERS 2 **5 UNITS**

90 Lecture Hours

Prerequisite: Satisfactory completion of SPAN 109.

A continuation of SPAN 109. This course is intended for Spanish-speaking students who seek to continue building their reading, writing, speaking, and listening skills in standard Spanish. Students will continue to increase awareness of linguistic registers, and discuss topics beyond the familiar routine through continued grammar review, vocabulary expansion and writing. Students will continue to expand upon their appreciation for Spanish speaking cultures through the discussion and analysis of selected readings, in Spanish, from Spanish speaking countries and the United States. Equivalent to the satisfactory completion of three years of high school Spanish. Taught exclusively in Spanish. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CID: SPAN 230) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

SPAN 112—INTRODUCTION TO CHICANO/A LITERATURE **3 UNITS**

54 Lecture Hours

Formerly listed as: SPAN - 112: Introduction to Chicano/a Literature

Prerequisite: Satisfactory completion of SPAN 104 or SPAN 110.

Overview of the historical development and current trends in Chicano/a literature; taught in Spanish. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A)

SPAN 173—SURVEY OF LATIN AMERICAN LITERATURE **3 UNITS**

54 Lecture Hours

Prerequisite: Satisfactory completion of SPAN 104 or SPAN 110.

Introduction to Latin American literature from the Pre-Colombian Period to the present; a literary survey of major works from different literary movements and from various genres such as poetry, short story, essay, drama, and the novel. Taught in Spanish. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A)

Spelling Courses (SPELL)

SPELL 31—BASIC SPELLING AND PHONICS **3 UNITS**

54 Lecture Hours

Designed for non-native speakers to improve reading and spelling. Emphasis on sound symbol relationships in English and phonics rules. Discrimination between words which are similar in either spelling or sound. (A-F Only) Lecture. Not repeatable.

SPELL 32—SPELLING AND PRONUNCIATION **3 UNITS**

54 Lecture Hours

Designed to improve spelling and pronunciation skills by introducing and using the phonic patterns of English. (A-F Only) Lecture. Not repeatable.

Study Skills/Counseling Courses (STSK)

STSK 25—STUDENT SUCCESS STRATEGIES **1 UNIT**

9 Lecture Hours, 9 Disc Hours

Designed to increase the student's success in college and facilitate the transition to the workplace and other college courses. Practical emphasis on goal setting, time management, study skills and interpersonal communication. This class does not meet guidance requirements for graduation. (A-F Only) Lecture/Disc. Not repeatable.

STSK 78—COLLEGE STUDY SKILLS **3 UNITS**

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and satisfactorily complete READ 82.

Designed for students who desire to increase their academic potential. Learn about Modesto Junior College and the culture of higher education. Acquire and practice effective and efficient learning strategies. The impact of student attitudes, choices, motivation and learning style on college success will also be examined. Field trips might be required. Lecture. (A-F Only) (CC GUIDE 100) Not repeatable. **Local Requirement**: Guidance

Supervisory Management Courses (SUPR)

SUPR 106—GROUP & ORGANIZATIONAL COMMUNICATION **3 UNITS**

54 Lecture Hours

Formerly listed as: SUPR 106: Organizational Communication

Also offered as: COMM 106

Formerly listed as: SPCOM 106: Organizational Communication

Communication within and between groups and organizations while enhancing individual communication skills. Emphasis on communication and organizational theory as basis for focus on such communication processes as task-oriented discussions, problem solving, leadership, conflict resolution and negotiation, communication climate, and organizational culture. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU) (C-ID: COMM 140) **General Education**: (MJC-GE: D2)

SUPR 351—ELEMENTS OF SUPERVISION **3 UNITS**

54 Lecture Hours

Also offered as: BUSAD 351

The nature and function of the supervisor's role in business, industry, and government. The skills and techniques of effective management will be examined and applied in terms of attaining maximum results through the cooperative efforts of others. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable.

SUPR 364—TOTAL QUALITY MANAGEMENT **3 UNITS**

54 Lecture Hours

Also offered as: BUSAD 364

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete SUPR 351 or satisfactorily complete BUSAD 240.

Total Quality Management, TQM, is a method by which management and employees can become involved in the continuous improvement of the production of goods and services. This course focuses on total quality management concepts, methodologies and practices of services and manufacturing industries. Topics like organizational and cultural aspects of total quality management associated with implementing quality systems, communicating the quality message, team building, training and learning will be addressed. Field trips are not required. (AF or P/NP) Lecture. Not repeatable.

Theatre Courses (THETR)

NOTE: For Dance Courses see (DANCE)

THETR 100—INTRODUCTION TO THEATRE ARTS 3 UNITS

54 Lecture Hours

This course focuses on the relationship of theatre to various cultures throughout history, and on the contributions of significant individual artists. This course introduces students to elements of the production process including playwriting, acting, directing, design, and criticism. Students will also survey different periods, styles and genres of theatre through play reading, discussion, films and viewing and critiquing live theatre, including required attendance of theatre productions. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC DRAMA 10) (C-ID: THETR 111) **General Education**: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

THETR 105—INTRODUCTION TO STAGECRAFT 3 UNITS

45 Lecture Hours, 27 Lab Hours

An introduction to technical theatre and the creation of scenic elements. Includes basic concepts of design, painting techniques, set construction, set movement, prop construction, backstage organization, and career possibilities. May include stage management, lighting, and/or sound techniques. Lecture, reading, projects, and practical experiences. Field trips are not required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC)(C-ID: THTR 171) **Local Requirement**: (Activities)

THETR 114—SCRIPT ANALYSIS 3 UNITS

54 Lecture Hours

Basic approach to analysis of a play script, intended to provide theatre practitioners and generalists with tools necessary to understand the literary text of a play, and its application to work in performance, design and critical/historical studies. Fully explores an in-depth methodology of reading, analyzing and understanding play scripts in a variety of genres and styles intended for production. Field trips might be required. Not repeatable. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) (CID: THETR 114) **General Education**: (MJC-GE: C)

THETR 120—ORAL INTERPRETATION 3 UNITS

54 Lecture Hours

Also offered as: COMM 120 (SPCOM 120)

Formerly listed as: THETR 120/SPCOM 120: Oral Reading / Interpretation

Skills in oral interpretation of literature; choice of material, involvement with material; communication of author's thought, emotion and language; expanded knowledge of literature and literary forms. Field trips are not required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC DRAMA 20) (C-ID: COMM 170) **General Education**: (MJC-GE: C) (CSU-GE: C1)

THETR 122—INTRODUCTION TO READERS' THEATRE 3 UNITS

54 Lecture Hours

Also offered as: COMM 122 (SPCOM 122): Introduction to Readers' Theatre

Study of oral interpretation principles as they apply to group and choral reading. Emphasis will be placed upon the preparation and performance of Readers' Theatre productions. Students are provided the necessary theory, practice for performance and criticism to enhance skills for development and oral presentation of Readers' Theatre material. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) (CC DRAMA 22) **General Education**: (MJC-GE: C) (CSU-GE: C1)

THETR 123—STORYTELLING 3 UNITS

54 Lecture Hours

Also offered as: COMM 123 (SPCOM 123): Storytelling

Introduction to the art of storytelling focusing on the preparation and presentation of literature. Emphasis is placed upon selection of materials, analysis, preparation, and presentation of various genres of stories. Designed to develop the adult reader's knowledge, critical ability and appreciation of literature, as well as critical listening of others sharing literature. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1)

THETR 124—ADVANCED READERS' THEATRE 3 UNITS

54 Lecture Hours

Also offered as: COMM 124 (SPCOM 124): Advanced Readers' Theatre

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete COMM (SPCOM) 122 or satisfactorily complete THETR 2.

Continued development of the construction and direction of Readers' Theatre performances suitable for public presentation. Emphasis on analysis of reading materials and helping others enhance communication skills through vocal control and physical expression. Field trips might be required. (A-F or P/NP) Lecture. Not repeatable. **Transfer**: (CSU, UC) **General Education**: (MJC-GE: C) (CSU-GE: C1)

THETR 133—REHEARSAL AND PERFORMANCE 1 2 UNITS

108 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass audition process.

Participation as actors in a fully supported theatre production. This introductory course focuses on ensemble performance techniques that are essential for a play production. Participation inrehearsals and public performances is required. Field trips are not required. Lab. (A-F Only) Not repeatable. **Transfer**: (CSU, UC) (C-ID: THTR 191) **Local Requirement**: (Activities)

THETR 134—REHEARSAL AND PERFORMANCE 2 2 UNITS

108 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass audition process.

Participation as an actor cast in a fully supported theatre production. This course focuses on techniques essential for a play production. Participation in rehearsals and public performances is required. Field trips are not required. (A-F Only) Lab. **Transfer**: (CSU, UC) (C-ID: THTR 191) **Local Requirement**: (Activities)

THETR 135—REHEARSAL AND PERFORMANCE 3 2 UNITS

108 Lab Hours

Limitations on Enrollment: Enrollment limited to successful audition process and get cast in a role.

Participation as an actor with intermediate skills level in a fully supported theatre production. This course focuses on the intermediate techniques essential for a play production. Participation in rehearsals and public performances is required. Field trips are not required. (A-F Only) Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: THTR 191) **Local Requirement**: (Activities)

THETR 136—REHEARSAL AND PERFORMANCE 4 2 UNITS

108 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass the audition process and get cast in a role.

Participation as an actor with advanced skills level in a fully supported theatre production. This course focuses on advanced techniques essential for a play production. Participation in rehearsals and public performances is required. Field trips are not required. (A-F Only) Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: THTR 191) **Local Requirement**:(Activities)

This course provides the opportunity for students to create original choreography and or perform in a student showcase. All phases of the dance concert process from auditions to rehearsal to backstage preparation will be covered. Audition required. Field trips might be required. (A-F Only) Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requ**irement: (Activities)

THETR 159—REHEARSAL AND PERFORMANCE IN MUSICAL THEATRE 2 UNITS

108 Lab Hours

Limitations on Enrollment: Enrollment limited to students who successfully pass audition process.

Students participate as actors, singers, dancers in a fully supported musical theatre production. This course focuses on individual and ensemble performance techniques that are essential for a musical or opera production. Participation in rehearsals and public performances is required. Field trips might be required.(A-F Only) Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: THTR 191) **Local Requirement**: (Activities)

THETR 160—FUNDAMENTALS OF ACTING 3 UNITS

45 Lecture Hours, 27 Lab Hours

Prepares the student to apply basic acting theory to performance. Develops the skills of interpretation of drama through acting. Emphasis on skills for performance: memorization, stage movement, vocal production, and interpretation of text. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (CC DRAMA 42) (C-ID: THTR 151) **General Education**: (MJC-GE: C) (CSU-GE: C1)

THETR 161—INTERMEDIATE ACTING 3 UNITS

45 Lecture Hours, 27 Lab Hours

Prerequisite: Satisfactory completion of THETR 160.

This course follows Acting I (Fundamentals of Acting) and continues the exploration of theories and techniques used in preparation for the interpretation of drama through acting. The emphasis will be placed on deepening the understanding of the acting process through character analysis, monologues and scenes. The work in class will be presented at the end of the semester in a culminating final public performance. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: THTR 152) **General Education**: (MJC-GE: C) (CSU-GE: C1)

THETR 164—IMPROVISATIONAL ACTING 3 UNITS

45 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 160.

Intensive study of the basic techniques of theatre games and improvisational acting with specific concentration on improvisational theatre formats. Course will culminate in a public improvisational performance. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) **Local Requirement**: (Activities)

THETR 174—STAGE MAKEUP 3 UNITS

45 Lecture Hours, 27 Lab Hours

Instruction and practice in a lecture/laboratory setting in all phases of makeup specifically designed for theatrical use. Materials fee required. Field trips are not required. (A-F or P/NP)Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: THTR 175) **Local Requirement**: (Activities)

THETR 175—STAGE COSTUMING 3 UNITS

45 Lecture Hours, 27 Lab Hours

Costume history, design, and basic construction techniques as an introduction to basic theatrical costuming. Fabrics and their various uses will be investigated. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: THTR 174) **Local Requirement**: (Activities)

THETR 182—PRACTICAL STAGE LIGHTING 3 UNITS

45 Lecture Hours, 27 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 100.

An introduction to the art and practice of lighting design for the stage. Lectures will include: the use and control of stage lighting instruments, choosing color, basic electricity, the physical and psychological properties of light as applied to stage illumination. Practical application in lab work will include assisting in the lighting of a fully supported play, musical or dance production. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU, UC) (C-ID: THTR 173)

THETR 190—THEATRE PRODUCTION WORKSHOP 1 UNIT

54 Lab Hours

Formerly listed as: THETR 190AB: Theatre Production Workshop

A repeatable, multi-technical, group lab-only course focusing on the practical aspect of mounting and running a theatrical production. Students will gain practical experience in

the application of production responsibilities in any of the following: stage management, house management, scenery or costume construction, lighting, sound and running crews. Field trips are not required. Four completions allowed. (A-F or P/NP) Lab. **Transfer**: (CSU, UC) (C-ID: THTR 192) **Local Requirement**: (Activities)

THETR 196—STAGE MANAGEMENT **3 UNITS**

54 Lecture Hours

Formerly listed as: THETR 196: Theatre Management

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 100.

The functions and duties of stage managers, production managers and directors for live theatre productions are examined. Major topics include the creation of a production book, box office management techniques and the organizational structure of theatrical producing organizations. Field trips might be required. (A-F or P/NP) Lecture. **Transfer**: (CSU, UC) Not repeatable. **Local Requirement**: (Activities)

Tutoring Courses (TUTOR)

TUTOR 100—INTRODUCTION TO GENERAL TUTORING **1 UNIT**

18 Lecture Hours

Formerly listed as: TUTOR 50: Tutor Training

Limitations on Enrollment: Enrollment limited to students selected as tutors for the Library & Learning Center.

Introductory tutoring course limited to students selected as tutors for the Learning Center. Designed to train students to become peer tutors. Introduces students to their role as a peer tutor and to the methods of effective tutoring. Cross-cultural understanding and working with students with diverse abilities is emphasized. Field trips are not required. (P/NP Only) Lecture. Not repeatable. **Transfer**: (CSU)

TUTOR 110—INTRODUCTION TO TUTORING COMPOSITION **1 UNIT**

18 Lecture Hours

Formerly listed as: ENGL 183: Introduction to Tutoring Composition

Prerequisite: Satisfactory completion of ENGL 101.

Corequisite: Concurrent enrollment in or satisfactory completion of TUTOR 100.

Introductory course in the tutoring processes of cross-curricular composition. Students will learn strategies for tutoring developmental to advanced writers. Specific focus will be on techniques for improvement of fluency, structure, revision, proofreading, and reading. Intended for students selected as tutors for the Library & Learning Center's Writing Center. Field trips are not required. Not repeatable. (P/NP Only) Lecture. **Transfer**: (CSU)

TUTORING NON-CREDIT COURSES (TUTOR)

TUTOR 850—SUPERVISED TUTORING

80 Lab Hours

Provides individual learning opportunities for students with expressed needs. Includes study strategies, learning modes, and developmental materials. All learning experiences will be under instructional supervision. Four completions allowed. Field trips are not required. (Non-Graded course) Lab.

Vocational, Work Experience Courses (VOCWE)

Modesto Junior College serves the needs of its students and those of the community through its Work Experience program. A program objective is to provide guidance and opportunity for career planning students in the real laboratory of the communities' businesses, industries and public agencies. Work experience education results when it encompasses a systematic plan whereby students, while in college, gain realistic employment experiences through work. Two Work Experience programs are offered: General Work Experience and Vocational Work Experience. Employment may be on a paid or volunteer basis and may be at work sites on or off campus. For General Work Experience, please see WKEX (Work Experience, General).

Designed to provide extended learning opportunities in students' chosen occupational fields, Vocational Work Experience programs become practical laboratories for reinforcing in-school training. Students should consult their advisors to determine divisional practice on work experience units acceptable toward major requirements. Vocational work experience classes are available in all discipline areas using the number 349 or 259 A,B,C,D (1-4 units) except Nursing (see Nursing Program). With the exception of

Administration of Justice, Agriculture, Child Development and Nursing, Vocational Work Experience students must register for and attend VOCWE 349S. During the first lecture meeting, the instructor will assist the student in adding to his or her schedule the appropriate Vocational Work Experience class depending on the student's academic goals and employment setting.

VOCWE 349S—VOCATIONAL WORK EXPERIENCE SEMINAR

Designed to accompany vocational work experience courses in all discipline areas (with the exception of Administration of Justice, Agriculture, Child Development and Nursing). Provides an orientation to the structure of cooperative work experience education and develops specific knowledge and skills related to employment situations through the accomplishment of goals. Includes job applications, resumes, interpersonal relationships, career selection, and relevant employment laws, regulations and policies. Lecture. Non graded. Not repeatable.

Welding Courses (WELD)

WELD 200—ARC & GAS WELDING **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Introduction level course with a lecture/lab format of instruction. Activities and topics include oxyacetylene welding/cutting and shielded metal arc welding processes. Materials fee required. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) (CC WT 121)

WELD 204—GAS METAL ARC WELDING (G.M.A.W) & FLUX CORE ARC WELDING (F.C.A.W) **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Formerly listed as WELD 204 - Gas Metal Arc (MIG) Flux Core Arc (FCAW

Prerequisite: Satisfactory completion of WELD 200.

Advanced occupational welding procedures for ferrous and non-ferrous metals, manual and automated oxyfuel cutting, carbon arc gouging. Includes the introduction of qualification testing procedures that meet the American Welding Society's structural steel code (D1-1) certification. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) (CC WT 122)

WELD 206—GAS TUNGSTEN ARC WELDING (G.T.A.W.) **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Formerly listed as WELD 206 - Gas Tungsten Arc Welding (TIG)

Prerequisite: Satisfactory completion of WELD 200.

Advanced occupational course covering welding procedures for ferrous and nonferrous sheet-metals and purge welding procedures for stainless steel tubing. Materials fee required. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable. **Transfer**: (CSU) (CC WT 123)

WELD 300—INTERMEDIATE WELDING **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of WELD 200.

Intermediate level course that uses a lecture/lab format of instruction. Activities and topics cover the welding procedures for mild steel plate, manual and automated oxyfuel cutting, and carbon arc gouging. Qualification testing procedures that meet the American Welding Society's structural code (D1-1) will also be covered. Materials fee required. Field trips might be required.(A-F or P/NP) Lecture/Lab. Not repeatable.

WELD 325—DESIGN AND FABRICATION PROCESSES **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of WELD 204.

Theory of drawing to include techniques of sketching out ideas through the development of layout of final blueprints. Estimating cost including the selection of appropriate materials and fabrication processes. Projects are required. Field trips might be required. (A-F Only) Lecture/Lab. Not repeatable.

WELD 340—PIPE WELDING **3 UNITS**

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of WELD 300.

This course offers instruction (both lecture and laboratory) in mild steel pipe welding using the SMAW process. Activities and topics will include general pipe fitting, welding procedures, electrodes, applied layout, and fit-up, hangers, equipment, techniques. Practice in the certification procedure for the American Petroleum Institute (API 1104) code will also be covered. Materials fee required. Field trips are required. (A-F or P/NP Lecture/Lab. Not repeatable.

Workforce Skills Courses (WKFSK)

NON-CREDIT COURSES

WKFSK 801—INTRODUCTION TO WORKFORCE DEVELOPMENT SKILLS **0 UNITS**

9 Lecture Hours, 27 Lab Hours

Training for employees on how to achieve success in any career situation. Explores elements of communication, team building, active listening and job retention skills. Open entry/open exit. Lecture/Lab. Field trips might be required. Four completions allowed.

WKFSK 810—SKILLS TO SUCCEED AT A NEW JOB **0 UNITS**

18 Lecture Hours

Intended for those re-entering the workforce, or just starting to work, and looking for skills to achieve success as a new employee. Explores in depth job retention skills including job transition concepts, employer expectations, customer service, attitude, feedback and balancing work and personal life. Course is repeatable. Field trips might be required. Lecture. (Non-Graded course)

Zoology Courses (ZOOL)

ZOOL 101—GENERAL ZOOLOGY **4 UNITS**

36 Lecture Hours, 108 Lab Hours

Prerequisite: BIO 101

Principles of animal life and classification. Survey of major animal and protozoan phyla with emphasis on evolutionary relationships, structural and physiological adaptations and ecological importance. Field trips required. Lecture/Laboratory. Not repeatable. **Transfer**: (CSU, UC) (CC BIOL 4) (MJC BIO 101+ BOT101+ZOOL101= CC BIOL 2+4+6) **General Education**: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)