



How to read course descriptions

PHYSO - PLSC

PHYS 165—INTRODUCTORY PHYSICS **5 Units**
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 122 or to be eligible for enrollment in MATH 171 as determined by the MIC Assessment Process.
 Introduction to physics through the study of laboratory measurement in selected topic areas to include mechanics, wave motion, thermodynamics, and electricity and magnetism. Develops the theoretical and experimental foundation for PHYS 101 and PHYS 142. Lecture/Laboratory. (A-F or P/NP) **Transfer:** CSU, UC **General Education:** (MIC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A)

PHYS 180—CONCEPTUAL PHYSICS: A HANDS-ON APPROACH **4 Units**
Prerequisite: Satisfactory completion of MATH 90 or eligibility for MATH 101 or higher as determined by MIC 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) **Transfer:** CSU, UC. **General Education:** (MIC-GE:A) (CSU-GE: B1, B3) (IGETC: 5A)

PHYSO (Physiology)

PHYSO 101—INTRODUCTORY HUMAN PHYSIOLOGY **5 Units**
Prerequisite: Satisfactory completion of ANAT 125 and CHEM 143 and (BIO 101 or BIO 111)
 Study of body function, organ system integration, communication, and homeostasis at the biochemical, cellular, and systemic level. Includes control of osmolarity, protein synthesis and cellular metabolism; cellular communication, neural information processing, blood movement and hemostasis; fluid balance, respiration and digestion; reproduction; sensory perception and control of movement. Intended for students entering health professions (A-F or P/NP) One completion allowed. Lecture/Lab **Transfer:** CSU, UC (CC BIOL 60) **General Education:** (MIC-GE:A) (CSU-GE: B2, B3) (IGETC: 5B)

PHYSO 103—INTRODUCTION TO NEUROSCIENCE **3 Unit(s)**
Prerequisite: Satisfactory completion of PSYCH 101
Also offered as PSYCH 103
 Introduction to the biological basis of behavior. Emphasis on divisions of the nervous system, neuroanatomy, neurophysiology, psychopharmacology as applied to the understanding of perceptual processes, psychoactive drugs, movement, regulation of hunger and thirst, sexual behavior, sleep, learning and memory, language, emotion, reward and stress, psychopathology. Appropriate for all students interested in the behavioral and biological sciences. (A-F and P/NP) **Transfer:** to CSU, UC **General Education:** (MIC-GE:A) (CSU-GE: B2, B3) (IGETC: 5B)

PLSC (Plant Science)

PLSC 50—PREPARATORY PLANT SCIENCE **3 Units**
 Preparation in plant science including structure, growth processes, propagation, physiology, growth media, biological competitors, and post-harvest factors of food, fiber, and ornamental plants. (A-F or P/NP) Lecture.

PLSC 200—INTRODUCTION TO PLANT SCIENCE **3 Units**
 Introduction to plant science, including structure, growth processes, propagation, physiology, growth media, biological competitors, and post-harvest factors of food, fiber, and ornamental plants. Lecture. (A-F Only) **Transfer:** CSU, UC **General Education:** (MIC-GE: A) (CSU-GE: B2)

PLSC 205—FIELD CROPS **3 Units**
 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). Lecture/Laboratory. (A-F Only) **Transfer:** CSU

PLSC 215—VEGETABLE CROPS **3 Units**
 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 required. Lecture/Laboratory. (A-F Only) **Transfer:** CSU, UC

PLSC 230—FRUIT SCIENCE **3 Units**
 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. Lecture/Laboratory. (A-F Only) **Transfer:** CSU, UC **General Education:** (MIC-GE:A)

PLSC 235—PLANT PROPAGATION/PRODUCTION **3 Units**
Recommended for Success: Satisfactory completion of PLSC 200 and/or EHS 210.
Also offered as EHS 235.
 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. Field trips required. One completion allowed. Lecture/Laboratory. Not offered every semester. (A-F Only) **Transfer:** CSU

PLSC 241—VITICULTURE **3 Units**
 California grape production; study of table and wine grape varieties, uses, adaptations and products, production practices, propagation and planting; training, pruning and irrigation systems; recognition and control of grape pests and diseases. Student is required to design a new vineyard and critique an existing operation. Field trips required. Lecture/Laboratory. (A-F Only) (Fall) **Transfer:** CSU, UC

PLSC 250—PLANT NUTRITION AND FERTILIZER **3 Units**
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete NR 200.
 An overview of plant nutrition principles in order to understand fertilizers, amendments, their uses, value, application, and relationship to soils and to crops grown in this area. Deficiency symptoms, pH, soil and plant tissue testing, and environmental factors and concerns. Field trips required. Lecture/Laboratory. **Transfer:** CSU, (A-F Only)

PLSC 255—PLANT PEST CONTROL **3 Units**
 Study of crop mites and insects, their morphology, identification, life cycles, host and habitat relationships, methods and materials of control. Lecture/Laboratory. (A-F Only) **Transfer:** CSU

PLSC 260—PLANT DISEASE CONTROL **3 Units**
 Study of common local crop diseases, their economic importance, identification, life cycles, host and habitat relationships, and methods of control. Field trips required. Lecture/Laboratory. (A-F Only) **Transfer:** CSU

PLSC 287—INTEGRATED PEST MANAGEMENT **1 Unit**
Formerly listed as PLSC 387
 Current topics and discussion on integrated pest management, designed to satisfy Department of Pesticide Regulation requirements for certified pesticide applicator's continuing education. Field trips may be required. Unlimited completions. Lecture. (A-F Only) **Transfer:** CSU

PLSC 385—PRUNING **1 Unit**
 Pruning of deciduous fruits, nuts and vines. Care and maintenance of tools and equipment. Proper irrigation, fertilization, and insect control also included. Field trips required. Lecture/Laboratory. Saturday labs. (A-F Only)

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.

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ADJU

(Administration of Justice)

Dean: Cecelia Hudelson
Division Office: Founders Hall 100
Phone: (209) 575-6129
Division website: mjc.edu/prospective/programs/bbss/
Instructors: Greg Hausmann

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 may be required. (A-F Only) Lecture. **Transfer:** (CSU)

ADJU 145A,B,C,D—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. May be repeated up to 16 units in any combination. Discussion. **Transfer:** (CSU)

ADJU 201—INTRODUCTION TO ADMINISTRATION OF JUSTICE 3 UNITS

Formerly listed as: ADJU - 201: Intro to Administration of Justice
54 Lecture hours

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. (A-F Only) **Transfer:** (CSU, UC) (CID-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) **Transfer:** (CSU, UC) (CID-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) **Transfer:** (CSU, UC) (CID-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 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 may be required. (A-F Only) Lecture. **Transfer:** (CSU)(CID-AJ 124)

ADJU 205—COMMUNITY RELATIONS 3 UNITS

54 Lecture hours
 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 may be required. (A-F Only) Lecture. **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. **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) **Transfer:** (CSU)

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) **Transfer:** (CSU)

ADJU 215—INTRODUCTION TO FIREARMS 1½ UNITS

18 Lecture hours, 27 Lab hours
Limitation on Enrollment: 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. Prior to the use of a firearm in the course, each student must sign a declaration to the effect that he or she is not prohibited from such use by Penal Code Section 12021.

Historical evaluation, ownership evaluation, moral aspects, legal provisions, safety precautions, and restrictions covering the use of firearms; field demonstration and basic instruction in use of sidearms. Students must provide own ammunition. The instructor reserves the right to remove a student from the firing range due to a safety violation. Lecture/Laboratory. Materials fee required. Field trips may be required. (A-F Only) **Transfer:** (CSU)

COURSES: **ADJU**

ADJU 216—ADVANCED FIREARMS AND RANGE APPLICATION 1½ UNITS

18 Lecture hours, 27 Lab hours

Prerequisites: Satisfactory completion of ADJU 215 or LNF 388.

Limitation on Enrollment: This course is restricted under California Penal Code Section 12021, course requires handling and possessing 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. Prior to use of a firearm in the course, each student must sign a declaration to the effect that he or she is not prohibited from such use by Penal Code Section 12021.

A continuation of ADJU 215. In-depth review of legal aspects of firearms. Range firing of various weapons; usage of non-lethal weapons. Students must provide own ammunition, hearing protectors, and safety glasses. The instructor reserves the right to remove a student from the firing range due to a safety violation. Lecture/Laboratory. Field trips may be required. Materials fee required. (P/NP only) **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) **Transfer:** (CSU) General Education: (MJC-GE: B, E) (CSU-GE: E)

ADJU 219—CORRECTIONS FIREARMS TRAINING 1½ UNITS

18 Lecture hours, 27 Lab hours

Prerequisite: Satisfactory completion of ADJU 215.

Limitation on Enrollment: This course is restricted under California Penal Code Section 12021. Convicted felons, persons addicted to any narcotic or 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.

Laws, policies, and ethical considerations with specialized training in weaponry used by correctional agencies. Range firing of rifles, shotguns, and handguns. Students must provide safety glasses and hearing protectors, and ammunition. Course is restricted under state and federal laws. Instructor reserves the right to remove a student from the firing range due to a safety violation. Lecture/Laboratory. Field trips may be required. Materials fee required. (A-F Only) **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) **Transfer:** (CSU)

ADJU 232—JUVENILE JUSTICE PROCEDURES 3 UNITS

54 Lecture Hours

History of juvenile court laws in U. S. Theories of delinquency. California Juvenile Court law and court decisions. Discussion of runaways, and offenses committed by children. Field trips might be required (A-F Only) **Transfer:** (CSU) **General Education:** (MJC-GE: B)

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) **Transfer:** (CSU)

ADJU 235—INTRODUCTION TO CORRECTIONS 3 UNITS

54 Lecture hours

Introduction to the correctional field. Covers historical development of correctional processes, current trends, and future directions of the correctional field. Examines local, state and federal systems. Field trips may be required. (A-F Only) Lecture. **Transfer:** (CSU, UC) (C-ID: AJ200) **General Education:** (MJC-GE: B)

ADJU 236—CORRECTIONAL LAW 3 UNITS

54 Lecture hours

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 with the Dept. of Corrections, juvenile offenders and correctional personnel with the Youth Authority and diversion agencies. The laws will entail Federal, State, and Local jurisdictions. Field trips required. Lecture. (A-F Only) **Transfer:** (CSU)

ADJU 240—DRUG AWARENESS ½ UNIT

9 Lecture hours

Basic understanding of current drugs of abuse including psychological and physical symptomatology, appearance, and social implications. Lecture. (A-F Only) **Transfer:** (CSU)

ADJU 242—DOMESTIC VIOLENCE PREVENTION ½ UNIT

9 Lecture hours

An overview of domestic violence and abuse. Methods of detection, analysis of issues and application of techniques for treatment. Emphasis is on intervention for the prevention of domestic violence. Lecture. (A-F Only) **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) **Transfer:** (CSU)

ADJU 349—A,B,C,D WORK EXPERIENCE 1,2,3,4 UNITS

A=18 Lecture hours, B=36 Lecture hours, C=54 Lecture hours, D=72 Lecture hours

Designed for students who wish to combine classroom experience with an expansion of skills or knowledge acquired at a site of employment on a paid or volunteer basis. Work must directly relate to the student's area of study. Maximum 4 units may be earned per semester. May be repeated to a maximum of 16 units Work Experience credit. (Cooperative General Work Experience is included in the maximum.) Lecture.

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. (A-F or P/NP)

AG

(Agriculture, Vocational & Technical)

Dean: Mark A. Anglin

Division Office: Agriculture, Room 100

Phone: (209) 575-6200

Division website: www.mjc.edu/prospective/programs/agens/index.html

Instructors: David Baggett, Marlies Boyd, Gail Brumley, John Mendes

For degrees and certificates that can be earned in Agriculture: Vocational & Technical, see the Agriculture and Environmental Sciences Division on page 83.

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 100A, B—LEADERSHIP IN AGRICULTURE 1, 2 UNITS

A=18 Lecture hours B=18 Lecture hours, 54 Lab hours

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 required. Lecture/Leadership activities. Students may not exceed a total of 2 units in AG 100A only. **Transfer:** (CSU). (MJC 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. (A-F Only) Lecture. **Transfer:** (CSU) **General Education:** (MJC-GE: 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 may be required. (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) **Transfer:** (CSU)

AG 249—AGRICULTURE INTERNSHIP 2 UNITS

108 Lab Hours

Designed for agriculture majors who wish to combine classroom experience with an expansion of skills or knowledge acquired at an internship site on a paid or volunteer basis. Internship experiences must directly relate to the student's area of study. Field trips are not required. (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. **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. **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. May be completed up to four times. (A-F Only)

AG 349 A,B,C,D—WORK EXPERIENCE 1, 2, 3, 4 UNITS

AGRICULTURE—SUPERVISED PRACTICE

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

Corequisite: Enrollment in a minimum of 7 units, which may include Cooperative Vocational Work Experience.

Designed for agriculture majors who wish to combine classroom experience with an expansion of skills or knowledge acquired at a site of employment on a paid or volunteer basis. Work must directly relate to the student's area of study. Maximum of 4 units may be earned per semester. May be repeated to a maximum of 16 units Work Experience credit (Cooperative General Work Experience is included in this maximum.) (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/Laboratory. (A-F Only) **General Education:** (MJC-GE: A)

AG 390X,A,B,C,D—AGRICULTURAL SKILLS TRAINING ½,1,2,3,4 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)

AGEC (Agricultural Economics)

Dean: Mark A. Anglin

Division Office: Agriculture, Room 100

Phone: (209) 575-6200

Division website: www.mjc.edu/prospective/programs/agens/index.html

Instructors: Marlies Boyd, Gail Brumley, Bill Hobby, Amanda Schnoor

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/Other.

COURSES: **AGEC - AGGE**

**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.

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. (A-F Only) Lecture. **Transfer:** CSU

AGEC 208—INTRODUCTION TO INTERNATIONAL BUSINESS **3 UNITS**

54 Lecture hours

Also offered as: *BUSAD - 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. 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 **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 **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.*

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 may be required. (A-F Only) Lecture. **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/Laboratory. (A-F Only)(Spring) **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. **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 may be required. (A-F Only) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: D2)

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).*

Introduction to the sales and service professions with emphasis on, but not limited to, the agribusiness sector. Provides both theoretical background and experiential exercises on a variety of sales and service facets including: the sales industry, identifying and understanding personalities, motivating people, sales presentations, prospecting, sales management, and advertising and promotion. Designed to prepare for employment or augment a current sales job. Field trips required. Lecture/Laboratory. (A-F Only) **Transfer:** CSU

AGGE (Agriculture, General)

Dean: Mark A. Anglin

Division Office: Agriculture, Room 100

Phone: (209) 575-6200

Division website: www.mjc.edu/prospective/programs/agens/index.html

Instructors: Steve Amador, David Baggett, Marlies Boyd, Gail Brumley, Todd Conrado, Bill Hobby, John Mendes, Mike Morales, Dale Pollard, Amanda Schnoor

AGGE 145—PARLIAMENTARY PROCEDURE **1 UNIT**

18 Lecture hours

Also offered as *SPCOM 145*

Introduction to Parliamentary Procedure. Preparing for and participating in meetings as a member, officer, and chairperson. Rank and use of motions. - Lecture. (A-F or P/NP) **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 may be required. (A-F or P/NP) Lecture. **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 may be required. (A-F Only) Lecture. **Transfer:** (CSU, UC)

AGGE 191X,A,B—AGRICULTURE FIELD STUDIES **1½-2 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. (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. (A-F Only)

AGM (Agricultural Mechanics)

Dean: Mark A. Anglin

Division Office: Agriculture, Room 100

Phone: (209) 575-6200

Division website: www.mjc.edu/prospective/programs/agens/index.html

Instructors: Steve Amador, Todd Conrado

Courses with an asterisk are those in which safety glasses* are required per state law.

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)

AGM 200—INTRODUCTION TO MECHANICAL TECHNOLOGY 3 UNITS

Also offered as: INTEC - 200: Introduction to Mechanical Technology
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) **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) **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) **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. Lecture/Laboratory. (A-F Only). **Transfer:** CSU

AGM 213—MECHANICAL 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. Lecture/Laboratory. (A-F Only). **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) **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) **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 AGEC280.

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) **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) **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) Transfer: (CSU)

AGM 230—FIELD SURVEYING 2 UNITS

Also offered as: ENGR - 230: Field Surveying
18 Lecture Hours, 54 Lab Hours

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) **Transfer:** (CSU)

AGM 235—IRRIGATION AND DRAINAGE 3 UNITS

36 Lecture hours, 54 Lab hours

Irrigation and drainage problems relating to pumps, motors, sprinkler systems, structures, pipelines, ditches and wells; computation of costs and measurement of water; water law; basic principles of plant-soil-moisture relations and water movement in soil. Field laboratories required. Lecture/Laboratory. (A-F Only) **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) **Transfer:** (CSU)

COURSES: **AGM - ANAT**

AGM 241—DIESEL ENGINE PRINCIPLES 3 UNITS

Also offered as: AUTEK - 241: Diesel Engine Principles

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 AUTEK 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. (A-F Only) **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) **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) **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) **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 200 and 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 required. (A-F Only) Lecture/Lab.

Transfer: (CSU)

AGM 262—HYDRAULICS/PNEUMATICS 3 UNITS

54 Lecture hours

Also offered as INTEC 262

Formerly listed as AGM 362

Principles and practices of hydraulics/pneumatics as used in the industry. Study of the different applications and management of hydraulics for the most efficient use. Basic pneumatic principles and application systems. Field trips may be required. Lecture. **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) **Transfer:** (CSU)

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

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

36 Lecture Hours, 54 Lab Hours

Also offered as AUTEK 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) **Transfer:** (CSU)

ANAT (Anatomy)

Dean: Brian Sanders

Division Office: Science Building, Room 126

Phone: (209) 575-6173

Division website: www.mjc.edu/current/programs/divdepts/sme/

Instructors: David Ward, Michele Monlux, Pamela Upton, Robert Droual, Sandra Uyeshiro

ANAT 125—HUMAN ANATOMY 5 UNITS

36 Lecture hours, 108 Lab hours, 18 Discussion hours

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

Study of human body structures including organ, tissue and cellular interrelationships. Involves extensive use of models, specimens, histological material, and dissection. Cadaver materials and demonstrations are used. Intended for students entering the health professions. Field trips may be required. (A-F or P/NP) Lecture Lab. /Discussion. **Transfer:** (CSU, UC)(CC BIOL 10) (ANAT 125+PHYSO 101=CC BIO 10 + BIO 60) **General Education:** (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

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. Lecture Lab. **Transfer:** (CSU)

ANSC (Animal Science)

Dean: Mark A. Anglin

Division Office: Agriculture, Room 100

Phone: (209) 575-6200

Division website: www.mjc.edu/prospective/programs/agens/index.html

Instructors: Marlies Boyd, Bill Hobby, John Mendes, Amanda Schnoor

ANSC 50—PREPARATORY ANIMAL SCIENCES 3 UNITS

36 Lecture hours, 54 Lab 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.

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 (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 may be required. (A-F Only) Lecture. **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. **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 recordkeeping to ensure scientifically-based management decisions and consumer product acceptance. Field trips are required. (A-F Only) Lecture Lab. **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. **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 may be required. (A-F Only) Lecture Lab. **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 **Transfer:** (CSU)

ANSC 210—LIVESTOCK SELECTION AND EVALUATION 3 UNITS

54 Lecture 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. Lecture/Laboratory/required attendance at judging contests arranged. Three completions allowed. (A-F Only) **Transfer:** (CSU, UC)

ANSC 211—INTRODUCTION TO MEAT SCIENCE 3 UNITS

36 Lecture hours, 54 Lab hours

An introductory course to the meat industry with a special emphasis on meat products and value-added meat processing techniques. Concepts on food safety and sanitation, grading and inspection along with preservation and marketing strategies to meet current consumer demands. Field trips required. (A-F Only) Lecture/Lab. **Transfer:** (CSU, UC)

ANSC 212—ADVANCED LIVESTOCK SELECTION AND CARCASS EVALUATION 3 UNITS

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. Three 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 fundamentals of digestion and absorption in both ruminants and non ruminants are discussed. The nutritive value of feeds as they relate to the formulation of livestock rations will be emphasized, including by-product feeding. Field trips are required. (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) **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) **Transfer:** (CSU, UC)

COURSES: **ANSC**

<p>ANSC 217—ADVANCED BREEDING & ARTIFICIAL INSEMINATION <i>54 Lecture hours, 54 Lab hours</i> <i>Formerly listed as: ANSC - 217: Advanced Breeding & Artificial Insemination</i> <i>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).</i></p> <p>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. Transfer: (CSU, UC)</p>	<p>4 UNITS</p>	<p>ANSC 227—ADVANCED DAIRY CATTLE SELECTION & EVALUATION <i>36 Lecture hours, 54 Lab hours</i> <i>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.</i></p> <p>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. Three completions allowed. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU)</p>	<p>3 UNITS</p>
<p>ANSC 220—DAIRY INDUSTRY/DAIRY SCIENCE <i>36 Lecture hours, 54 Lab hours</i></p> <p>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. Transfer: (CSU, UC)</p>	<p>3 UNITS</p>	<p>ANSC 228—DAIRY MANAGEMENT <i>36 Lecture hours, 54 Lab hours</i> <i>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 AGECE 200.</i></p> <p>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. Transfer: (CSU)</p>	<p>3 UNITS</p>
<p>ANSC 221—DAIRY CATTLE SELECTION & EVALUATION <i>18 Lecture hours, 108 Lab hours</i></p> <p>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. Three completions allowed. Field trips are required. (A-F Only) Lecture Lab. Transfer: (CSU, UC)</p>	<p>3 UNITS</p>	<p>ANSC 230—POULTRY SCIENCE <i>36 Lecture hours, 54 Lab hours</i></p> <p>A study of the principles and practices of commercial poultry production. Emphasis to be placed on poultry nutrition, reproduction, environmental management, health, marketing and recordkeeping to ensure scientifically-based management decisions and consumer product acceptance. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU, UC)</p>	<p>3 UNITS</p>
<p>ANSC 222—MILK PRODUCTION & TECHNOLOGY <i>36 Lecture hours, 54 Lab hours</i></p> <p>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. Transfer: (CSU, UC)</p>	<p>3 UNITS</p>	<p>ANSC 232—AVIAN PRACTICES <i>36 Lecture hours, 54 Lab hours</i></p> <p>Practices in avian management including breeders, fryers and layers; incubating, brooding, and rearing of chicks; feed preparation; recordkeeping; 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. Transfer: (CSU, UC)</p>	<p>3 UNITS</p>
<p>ANSC 224—DAIRY FEEDS & FEEDING <i>36 Lecture hours, 54 Lab hours</i> <i>Fundamentals of nutrient digestion and absorption in ruminants. The nutritive value of feeds</i></p> <p>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. Transfer: (CSU)</p>	<p>3 UNITS</p>	<p>ANSC 235—POULTRY DISEASES AND HOUSING <i>36 Lecture hours, 54 Lab hours</i></p> <p>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. Transfer: (CSU)</p>	<p>3 UNITS</p>
<p>ANSC 226—DAIRY BREEDING & SELECTION <i>36 Lecture hours, 54 Lab hours</i></p> <p>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. Transfer: (CSU)</p>	<p>3 UNITS</p>	<p>ANSC 236—POULTRY BREEDING & SELECTION <i>36 Lecture hours, 54 Lab hours</i></p> <p>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. Transfer: (CSU)</p>	<p>3 UNITS</p>
<p>ANSC 240—BEEF FITTING AND SHOWING <i>27 Lecture hours, 27 Lab hours</i></p> <p>Principles of selection, feeding, fitting, and presentation of beef animals for show. Field trips required. - Lecture/Laboratory/Other. (A-F Only) Transfer: (CSU)</p>	<p>2 UNITS</p>	<p>ANSC 241—SHEEP FITTING AND SHOWING <i>27 Lecture hours, 27 Lab hours</i></p> <p>Principles of selection, feeding, fitting, and presentation of sheep for show. - Field trips required. Lecture/Laboratory. (A-F Only) Transfer: (CSU)</p>	<p>2 UNITS</p>
<p>ANSC 242—SWINE FITTING AND SHOWING <i>27 Lecture hours, 27 Lab hours</i></p> <p>Principles of selection, feeding, fitting, and presentation of swine for show. Field trips required. Lecture/Laboratory. (A-F Only) Transfer: (CSU)</p>	<p>2 UNITS</p>		

- ANSC 243—EQUINE FITTING AND SHOWING** 2 UNITS
 27 Lecture hours, 27 Lab hours
Formerly titled Horse Fitting and Showing
 Principles of selection, feeding, fitting, and presentation of horses for show. Field trips required. - Lecture/Lab. (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 may be required. (A-F Only) Lecture Lab. **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 may be required. - Lecture/Lab. (A-F Only) **Transfer:** (CSU)
- ANSC 250—VETERINARY PHYSIOLOGY ANATOMY, & TERMINOLOGY** 3 UNITS
 54 Lecture hours
Formerly listed as: ANSC - 250: Veterinary Physiology, Anatomy & Terminology
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 both large and small animals) in a body systems format, along with related vocabulary and spelling. Commonly used veterinary acronyms and abbreviations are woven throughout the course where relevant. (A-F or P/NP) 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. **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. **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. **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 may be required. (A-F Only) Lecture. **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. **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. **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 may be required. (A-F or P/NP) Lecture **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. May be completed up to 4 times. (A-F Only) Lecture/Lab. **Transfer:** (CSU)
- ANSC 259—PACK ANIMAL - WALK/RIDE** 2 UNITS
 18 Lecture hours, 54 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 may be required. (A-F Only) Lecture/Lab. **Transfer:** (CSU)
- ANSC 260—ADVANCED 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. May be completed up to 4 times. (A-F Only) Lecture/Lab. **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 ground-work, trailering, starting a colt, advancing the green horse, and problem-solving. (A-F Only) Lecture/Lab. **Transfer:** (CSU).
- ANSC 379—SMALL ANIMAL MEDICINE AND BEHAVIOR** 2 UNITS
 36 Lecture hours
Formerly listed as ANSC 377 and ANSC 378
 Basic introductory course in normal animal behavior of dogs and cats. The diagnosis and treatment of some of the most common pet behavior problems. Includes history of diseases and parasites in the area; management techniques to prevent diseases and parasites; state and federal regulatory services. Lecture. (A-F Only).

ANTHR (Anthropology)

Dean: Cecelia Hudelson

Division Office: Founders Hall 100

Phone: (209) 575-6129

Division website: mjc.edu/prospective/programs/bbss/

Instructors: Debra Bolter, Susan Kerr, James Todd

ANTHR 101—BIOLOGICAL ANTHROPOLOGY 3 UNITS

Formerly listed as: ANTHR - 101: Physical Anthropology 54 Lecture hours

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. (A-F or P/NP) **Transfer:** (CSU,UC) (CC ANTHRO 1) **General Education:** (MJC-GE:A)(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) **Transfer:** (CSU,UC)(CC:ANTHR 2) **General Education:** (MJC-GE: B) (CSU-GE: D1) (IGETC: 4A)

ANTHR 104—LINGUISTIC ANTHROPOLOGY 3 UNITS

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

54 Lecture Hours

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) **Transfer:** (CSU,UC) **General Education:** (MJC-GE:B,C)(CSU-GE:C2,D1) (IGETC: 3B, 4A)

ANTHR 105—BIOLOGICAL ANTHROPOLOGY LABORATORY 1 UNIT

Formerly listed as: ANTHR - 105: Physical Anthropology Laboratory

54 Lab Hours

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) **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 may be required. (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) **Transfer:** (CSU, UC) (CC: ANTHR 10) **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 complete ENGL 101 with minimum grade of C.

A cross-cultural study of the forms, functions and politics of supernatural beliefs and associated rituals in a diverse world. Emphasis on investigating belief systems and rituals within particular cultural contexts, including their emergence and the effect of their practice. Additional emphasis is on broad ethnographic comparison, 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 may be required. (A-F or P/NP) Lecture. **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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC)(CC ANTHR 15) **General Education:** (MJC-GE:B) (CSU-GE: D1, D3)(IGETC: 4A, 4C)

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. **Transfer:** (CSU)

AP (Anatomy & Physiology)

Dean: Brian Sanders

Division Office: Science Building, Room 126

Phone: (209) 575-6173

Division website: www.mjc.edu/current/programs/divdepts/sme/

Instructors: David Ward, Michele Monlux, Pamela Upton, Robert Droual, Sandra Uyeshiro

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. **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. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

ART

Dean: Michael Sundquist

Division Office: Performing and Media Arts Center, Room 205

Phone: (209) 575-6081

Division website: www.mjc.edu/arts

Instructors: Deborah Brayman, Doug Smith, Paul Berger, Richard Serros, Rob Stevenson, Tom Duchscher

ART 102—INTRODUCTION TO COMPUTER GRAPHIC 3 UNITS

Also offered as: CMPGR - 202: Introduction to Computer Graphics

36 Lecture Hours, 54 Lab Hours

Introduction to computer graphics using various applications and tools. Topics explored include but are not limited to: original image creation, photographics editing, scanning, printing, two-dimensional animation, sound, digitizing pens, mouse, and digital cameras. Materials fee required. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) **Graduation:** (MJC Activities) **General Education:** (CSU-GE: C1)

ART 103—APPLIED COMPUTER GRAPHICS 3 UNITS

36 Lecture hours, 54 Lab hours

Also offered as CMPGR 213

Recommended for Success: Satisfactory completion of ART 102/CMPGR 202

Formerly listed as Microcomputer Graphics.

Concepts and techniques in computer graphics as related to fine and applied art applications. Field trips required. Materials fee required. Lecture/Laboratory. **Transfer:** (CSU)

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) Transfer: (CSU, UC) (CC ART 31) **Graduation:** (MJC 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) Transfer: (CSU, UC) **Graduation:** (MJC 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) Transfer: (CSU, UC) **Graduation:** (MJC Activities)

ART 119—COMPUTER GRAPHICS PORTFOLIO REVIEW 1 UNIT

18 Lecture hours

Also offered as CMPGR 219

Prerequisite: This course follows the completed courses of the Computer Graphics majors/certificate core requirements.

Prepares the student majoring or receiving a certificate in Computer Graphics with the necessary visual and business skills to develop a portfolio; emphasizes the creative and applied business needs for individuals entering the professional field of Computer Graphics. Field trips required. Lecture/Laboratory. (A-F Only) **Transfer:** (CSU)

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) **Transfer:** (CSU) **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 may be required. (A-F or P/NP) Lecture/Lab. (MJC Activities). **Transfer:** (CSU, UC)

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 may be required. (A-F or P/NP) Lecture/Lab. (MJC Activities). **Transfer:** (CSU, UC) (CC ART 9A)

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

Formerly listed as: ART - 124: Color and Design 1

27 Lecture Hours, 81 Lab Hours

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. (A-F or P/NP) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C)

COURSES: **ART**

- ART 125—COLOR AND 3-D FOUNDATION DESIGN** **3 UNITS**
Formerly listed as: ART - 125: Color and Design 2
 27 Lecture Hours, 81 Lab Hours
Prerequisite: Satisfactory completion of ART 124.
 Introduction to the concepts and applications related to three-dimensional design and spatial 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) Transfer: (CSU, UC) **Graduation:** (MJC: 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) Transfer: (CSU, UC) **Graduation:** (MJC 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 may be required. (A-F or P/NP) Lecture/Lab. **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. Materials Fee Required. Field trips may be required. (A-F or P/NP) Lecture/Lab. (MJC Activities). **Transfer:** (CSU, UC)
- 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. Materials Fee Required. Field trips may be required. (A-F or P/NP) Lecture/Lab. (MJC Activities). **Transfer:** (CSU, UC)
- ART 144—WATERCOLOR PAINTING 1** **3 UNITS**
 27 Lecture hours, 81 Lab hours
Prerequisite: Satisfactory completion of ART 120 or ART 124.
 Theory and practice of transparent watercolor painting using still life and landscape subject matter. Traditional and experimental techniques will be used. - Field trips may be required. (A-F or P/NP) Lecture Lab. (MJC Activities). **Transfer:** (CSU, UC) (CC ART 23A)
- ART 145—WATERCOLOR PAINTING 2** **3 UNITS**
 27 Lecture hours, 81 Lab hours
Prerequisite: Satisfactory completion of ART 144.
 A continuation of the concepts and skills developed in ART 144. Emphasis is placed upon experimentation and on the development of a personal painting style. Field trips may be required. (A-F or P/NP) Lecture/Lab. (MJC Activities). **Transfer:** (CSU, UC) (CC ART 23B)
- 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 may be required. (A-F or P/NP) Lecture Lab. (MJC Activities). **Transfer:** (CSU, UC)
- 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 may be required. (A-F or P/NP) Lecture Lab. (MJC Activities). **Transfer:** (CSU, UC) (CC ART 21A)
- 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 may be required. (A-F or P/NP) Lecture Lab. (MJC Activities). **Transfer:** (CSU, UC) (CC ART 21B)
- ART 150—GALLERY OPERATION AND MANAGEMENT** **3 UNITS**
 27 Lecture hours, 81 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 160 or satisfactorily complete ART 164 or satisfactorily complete ART 165.
 Introduction to the various aspects of operation and management of an art gallery which entails exhibition organization, hanging, publicity, curation, and jurying. - Field trips are required. (A-F or P/NP) Lecture Lab. (MJC Activities). **Transfer:** (CSU)
- 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) **Transfer:** (CSU) (MJC Activities)
- ART 159—PAINTING 4** **3 UNITS**
 27 Lecture Hours, 81 Lab Hours
Prerequisite: Satisfactory completion of ART 158.
 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) **Transfer:** (CSU) (MJC Activities)
- ART 160—APPRECIATION OF ART** **3 UNITS**
 54 Lecture hours
 Introductory art appreciation for the general student. Illustrated lectures in painting, sculpture, architecture and design. Field trips may be required. (A-F or P/NP) Lecture. **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 may be required. (A-F or P/NP) Lecture. **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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **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) **Transfer:** (CSU, UC) (CC ART 11) **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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (CC ART 12) **General Education:** (MJC-GE:C)(CSU-GE:C1)(IGETC:3A)
- ART 168—HISTORY OF PHOTOGRAPHY** **3 UNITS**
Formerly listed as: ART - 168: Survey of Photography
54 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 170 or satisfactorily complete ART 181.
 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) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C)(CSU-GE: C1)(IGETC:3A)
- ART 169—SURVEY OF ASIAN ART** **3 UNITS**
Formerly listed as: ART - 169: History of Non-Western Art
54 Lecture Hours
 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) **Transfer:** (CSU, UC) (CC ART 13) **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 art and technique of photography: cameras, black-and-white film and print processing, composition, presentation, and concepts related photographic fine art. Practical emphasis is on film photography with discussion of digital applications. Materials fee required. Field trips might be required. (A-F or P/NP) **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) **Transfer:** (CSU, UC)
- ART 173—DIGITAL IMAGING FOR PHOTOGRAPHERS** **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) **Transfer:** (CSU, UC) **Graduation:** (MJC: 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) **Transfer:** (CSU, UC) **Graduation:** (MJC: 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 may be required. Materials fee required. Other - combination seminar, and hours arranged. **Transfer:** (CSU)
- ART 181—BASIC PHOTOGRAPHY 1** **1½ UNITS**
18 Lecture Hours, 27 Lab Hours
 Introduction to the art and technique of photography: cameras, films, papers, basic black-and-white darkroom operations, image composition, print quality, and photographic seeing. ART 181 and ART 182 are the two semester equivalent of ART 170. Materials fee required. Field trips might be required. (A-F or P/NP) **Transfer:** (CSU, UC) (ART 181+ART182=CC ART 40) **General Education:** (MJC-GE: C)
- ART 182—BASIC PHOTOGRAPHY 2** **1½ UNITS**
18 Lecture Hours, 27 Lab Hours
Prerequisite: Satisfactory completion of ART 181.
 Further introduction to the art and techniques of photography: cameras, films, papers, basic black-and-white darkroom operations, image composition, print quality, and photographic seeing. ART 181 and ART 182 are the two semester equivalent of ART 170. Materials fee required. Field trips might be required. (A-F or P/NP) **Transfer:** (CSU, UC) (ART 181+ART182=CC ART 40) **General Education:** (MJC-GE: C)
- ART 189AB—PHOTO LABORATORY TECHNOLOGY** **1-2 UNITS**
A= 54 Lab Hours, B= 108 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 170.
 Techniques for maintenance and operation of a photographic lab facility: equipment, chemistry, scheduling and other related activities. -Field trips might be required. (A-F or P/NP) **Transfer:** (CSU) **Graduation:** (MJC Activities)
- ART 191—PHOTO LABORATORY TECHNOLOGY 2** **1 UNIT**
54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 170.
 Maintenance and operation of a photographic lab facility: equipment, chemistry, scheduling and other related activities.- Field trips might be required. (A-F or P/NP) **Transfer:** (CSU) **Graduation:** (MJC Activities)
- ART 197—FIELD STUDIES IN PHOTOGRAPHY** **1 UNIT**
9 Lecture hours, 27 Lab hours
 Preparation of and participation in field studies of various thematic and technical approaches to photography as a fine art. Use of cameras and related equipment. Travel to specific geographic regions to augment the study of particular styles of photography. Geographic areas to be studied will vary from one term to the next. May be completed up to 4 times. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU)

ASTRO (Astronomy)

Dean: Brian Sanders
 Division Office: Science Building, Room 126
 Phone: (209) 575-6173
 Division website: www.mjc.edu/current/programs/divdeps/sme/
 Instructor: Kenneth Meidl

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) **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) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: A) (CSU-GE: B1) (IGETC: 5A)

AUBDY (Autobody)

Dean: Pedro Mendez
 Office: John Muir 258W
 Phone: (209) 575-6332
 Department website: www.mjc.edu/prospective/programs/teched/autobody/
 Instructors: Jeff Beebe

AUBDY 301—AUTOMOTIVE COLLISION REPAIR 1 5 UNITS

36 Lecture hours, 162 Lab hours

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

Introduction to automotive collision repair industry with emphasis on shop safety, careers, vehicle designs welding techniques, on-structural steel repairs including straightening and replacement procedures. Materials Fee Required Field trips may be required. (A-F Only) Lecture/Lab.

AUBDY 302—AUTOMOTIVE COLLISION REPAIR 2 5 UNITS

36 Lecture hours, 162 Lab hours

Prerequisite: Satisfactory completion of AUBDY 301 with a minimum grade of C or better.

This course is designed for the intermediate student who has successfully completed AUBDY 301 with emphasis on Automotive plastics, structural repairs, corrosion protection, vehicle dimensions, and estimating damage. Materials Fee Required Field trips may be required. (A-F Only) Lecture/Lab.

AUBDY 303—AUTOMOTIVE COLLISION REPAIR 3 4 UNITS

18 Lecture hours, 162 Lab hours

Prerequisite: Satisfactory completion of AUBDY 302 with a minimum grade of C or better.

This course is designed for the student who has completed Auto Body 301 and 302 with emphasis on advanced techniques, including repair and replacement of non structural and structural components. This course works towards ASE certification and uses the ICAR live delivery program. At the end of each program the student will take a post test and be eligible for ICAR Training Alliance gold class points. Materials Fee Required Field trips may be required. (A-F Only) Lecture/Lab.

AUBDY 321—AUTOMOTIVE SPRAY REFINISHING 1 2 UNITS

18 Lecture hours, 54 Lab hours

Introduction to automobile spray painting. Study of materials, supplies and equipment. Experience in feather edging and application of base coats; spray techniques in spot blending and panel refinishing with a base coat and clear coat. Materials Fee Required Field trips may be required. (A-F Only) Lecture/Lab.

AUBDY 322—AUTOMOTIVE SPRAY REFINISHING 2 3 UNITS

18 Lecture hours, 108 Lab hours

Prerequisite: Satisfactory completion of AUBDY 321 and AUBDY 301.

Continuation of AUBDY 321 with further instruction of automotive refinishing with single stage, base/clear coat urethane paints, and estimate writing. Materials Fee Required Field trips may be required. (A-F Only) Lecture/Lab.

AUTEK (Automotive Technology)

Dean: Pedro Mendez
 Office: John Muir 258W
 Phone: (209) 575-6332
 Department website: www.mjc.edu/prospective/programs/teched/autotech/
 Instructors: John Peterson, Gerald Wray

AUTEK 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) **Transfer:** (CSU)

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

27 Lecture Hours, 81 Lab Hours

Prerequisite: Satisfactory completion of AUTEK 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) **Transfer:** (CSU)

AUTEK 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) **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 may be required. (A-F Only) Lecture/Lab.

AUTEC 315—A1: ENGINE REPAIR**3½ UNITS***36 Lecture hours, 81 Lab hours**Formerly listed as Engine Rebuilding**Prerequisite: Satisfactory completion of AUTEC 311*

Use of automotive machine shop equipment. Engine disassembly, cleaning, inspection, measuring, and reassembly procedures. Lecture/Laboratory. Materials fee required. Lecture/Laboratory (A-F Only)

AUTEC 317—AUTO HEATING & AIR CONDITIONING**3½ UNITS***36 Lecture hours, 81 Lab hours**Formerly listed as: AUTEC - 317: Auto Heating and Air Conditioning**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.

AUTEC 319—A8: ENGINE PERFORMANCE**3½ UNITS***36 Lecture Hours, 81 Lab Hours**Prerequisite: Satisfactory completion of AUTEC 368.**Coresquisite: 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)

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)

AUTEC 321—A5: BRAKES SYSTEMS**3½ 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)

AUTEC 322—A4: STEERING, SUSPENSION AND ALIGN**3½ UNITS***36 Lecture Hours, 81 Lab Hours**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)

AUTEC 323—A2: AUTOMATIC TRANSMISSION & TRANSAXLES**3½ 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 transmissions, 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)

AUTEC 324—A3: MANUAL TRANS AND DR AXLES**3½ UNITS***36 Lecture Hours, 81 Lab Hours**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)

**AUTEC 368—A6: AUTOMOTIVE ELECTRICITY/
ELECTRONIC SYSTEMS 1****3½ UNITS***36 Lecture hours, 81 Lab hours**Coresquisite: 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.

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)

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.

BIO (Biology)

Dean: Brian Sanders

Division Office: Science Building, Room 126

Phone: (209) 575-6173

Division website: www.mjc.edu/current/programs/divdepts/sme/

Instructors: Catherine Greene, Derek Madden, Elizabeth McInnes, Joe Zermeno, Teri Curtis

All courses are offered for 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.

COURSES: **BIO**

BIO 50—BASIC BIOLOGY

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 may be required. (A-F or P/NP) Lecture.

General Education: (MJC-GE:A)

3 UNITS

BIO 101—BIOLOGICAL PRINCIPLES

54 Lecture Hours, 108 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. (A-F or P/NP) **Transfer:** (CSU, UC)(CC BIOL 2) (MJC BIO 101+ BOT101+ZOO101= CC BIO 2+4+6) **General Education:** (MJC-GE: A)(CSU-GE: B2, B3) (IGETC: 5B, 5C)

5 UNITS

BIO 111—GENERAL BIOLOGY

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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) (CC BIOL 17) **General Education:** (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

4 UNITS

BIO 114—GENERAL ECOLOGY

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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) (CC BIOL 24) **General Education:** (MJC-GE: A) (CSU-GE: B2, B3)(IGETC: 5B, 5C)

4 UNITS

BIO 115—GENETICS, EVOLUTION, AND SOCIETY

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, biotechnology and their implications for society. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: A) (CSU-GE: B2)(IGETC: 5B)

3 UNITS

BIO 116—BIOLOGY: A HUMAN PERSPECTIVE

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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: A) (CSU-GE: B2, B3)(IGETC: 5B, 5C)

4 UNITS

BIO 140—INTRODUCTION TO MARINE BIOLOGY

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 may be required. (A-F or P/NP) Lecture Lab. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

4 UNITS

BIO 145—INTRODUCTION TO FRESH WATER BIOLOGY

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 required. Lecture/Laboratory. Materials fee required. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: A)(CSU-GE: B2, B3)(IGETC: 5B, 5C)

4 UNITS

BIO 151X,A,B,C—BIOLOGY FIELD STUDIES

½,1,2,3 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, ZOO1 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/Laboratory. Materials fee required. Not offered every semester **Transfer:** (CSU)

BIO 180AB—INTRODUCTION TO TUTORING BIOLOGY

1,2 UNITS

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

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

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) **Transfer:** (CSU)

BOT (Botany)

Dean: Brian Sanders

Division Office: Science Building, Room 126

Phone: (209) 575-6173

Division website: www.mjc.edu/current/programs/divdepts/sme/

Instructors: Elizabeth McInnes

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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC)(CC BIOL 6) (MJC BIO 101+ BOT101+ZOO101= CC BIO 2+4+6) **General Education:** (MJC-GE: A) (CSU-GE: B2, B3)(IGETC: 5B, 5C)

BUSAD (Business Administration)

Dean: Cecelia Hudelson

Division Office: Founders Hall 100

Phone: (209) 575-6129

Division website: mjc.edu/prospective/programs/bbss/

Instructors: Linda Kropp, James McGarry, Nancy Sill

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. (A-F or P/NP)

BUSAD 100—STUDIES IN BUSINESS SUCCESS 1½ UNITS

27 Lecture hours

Recommended for Success: Satisfactory completion of GUIDE 110

Discussion of academic and other requisites for success in various business fields. Students will create a personal development plan for meeting academic requirements, acquisition of necessary skills, and entry into the job market of their elected field. Lecture. **Transfer:** (CSU)

BUSAD 200—SPREADSHEET SKILLS FOR FINANCIAL ACCOUNTING 2 UNITS

Formerly listed as: BUSAD - 200: Spreadsheet Skills for Financial Account

18 Lecture Hours, 54 Lab Hours

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

Introduction to spreadsheet software. Spreadsheet 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) **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) **Transfer:** (CSU, UC) (CC BUSAD 2A) (CID-ACC 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) **Transfer:** (CSU, UC) (CC BUSAD 2B)

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 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)

Transfer: (CSU) (CID-ACC 120)

BUSAD 204—COST ACCOUNTING 3 UNITS

54 Lecture hours

Prerequisite: Satisfactory completion of BUSAD 201 and 202.

Introduction to cost accounting theory and practice. Control of material, labor and burden costs; methods of applying expenses; job order and process cost system; cost statements.

Lecture. **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. 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 Student choice)

Lecture **Transfer:** (CSU)

BUSAD 209—IMPORT/EXPORT FUNDAMENTALS 3 UNITS

54 Lecture hours

Also offered as: AGEC - 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 **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) **Transfer:** (CSU) **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) **Transfer:** (CSU, UC) (CC: BUSAD 18)

COURSES: **BUSAD**

<p>BUSAD 230—PERSONAL FINANCE 3 UNITS <i>54 Lecture Hours</i> 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) Transfer: (CSU) General Education: (MJC-GE: E)</p>	<p>BUSAD 299A,B—MARKETING PROJECTS 1,2 UNITS <i>A=54 Lab hours B=108 Lab hours</i> <i>Formerly listed as BUSAD 285A,B - Special Projects</i> Independent analysis or design of computer accounting software or work in specialized BUSAD topics. Projects must have the approval of instructor. Conference with the instructor: minimum of 1 per month. Laboratory. Transfer: (CSU)</p>
<p>BUSAD 233—INVESTMENTS 3 UNITS <i>54 Lecture hours</i> <i>Recommended for Success: Satisfactory completion of BUSAD 230, and at least one semester of accounting.</i> Thorough study of corporate stocks and bonds, with time deposits, government securities, mutual funds, real estate, commodity futures, options and less common investment media receiving brief consideration. Emphasis on careful, critical investigation of risk and reward—rigorous mathematical analysis expected. Field trips may be required. Lecture. Transfer: (CSU)</p>	<p>BUSAD 300—MACHINE CALCULATION 2 UNITS <i>36 Lecture hours, 18 Lab hours</i> <i>Recommended for Success: Satisfactory completion of MATH 20</i> 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. Lecture/Laboratory.</p>
<p>BUSAD 240—PRINCIPLES OF MANAGEMENT 3 UNITS <i>54 Lecture Hours</i> 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) Transfer: (CSU) (CC BUSAD 40) General Education: (MJC-GE: B)</p>	<p>BUSAD 310—BOOKKEEPING 1 3 UNITS <i>54 Lecture hours</i> <i>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 300 or satisfactorily complete MATH 50.</i> 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. (A-F or P/NP) Lecture.</p>
<p>BUSAD 245—PRINCIPLES OF MARKETING 3 UNITS <i>54 Lecture Hours</i> 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)(CC BUSAD 30) Transfer: (CSU)</p>	<p>BUSAD 319—PAYROLL ACCOUNTING 3 UNITS <i>36.00 Lecture Hours, 54.00 Lab Hours,</i> <i>Prerequisite: Satisfactory completion of BUSAD 310 with a minimum grade of C or better BUSAD 201 with a minimum grade of C or better or.</i> <i>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 320 with a minimum grade of C or better if BUSAD 310 is used as a prerequisite.</i> Completing the payroll register. Reporting payroll tax information to the federal and state governments, with emphasis on completing both quarterly and annual reports. Making the necessary journal entries to record payroll transactions. Computing payroll on the microcomputer. Field trips are not required. (A-F or P/NP)</p>
<p>BUSAD 248—INTRODUCTION TO BUSINESS 3 UNITS <i>54 Lecture Hours</i> 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) Transfer: (CSU, UC)(CC BUSAD 20)</p>	<p>BUSAD 320—BOOKKEEPING 2 3 UNITS <i>54 Lecture hours</i> <i>Prerequisite: Satisfactory completion of BUSAD 310</i> Entries requiring analysis and interpretation; entries for promissory notes; adjustments for prepaid; unlearning and accrued items; depreciation of assets; property sales; closing of books; partnership and corporate accounting; cash flows and financial analysis. Lecture.</p>
<p>BUSAD 249—BUSINESS INTERNSHIP 4 UNITS <i>72 Discussion hours</i> An internship program with selected business firms dealing with either accounting, computer science, marketing, business law, office administration, bookkeeping, or retail management practices in public or private agencies. Student interns will be under joint supervision of the employers and a faculty member. 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). See appropriate instructor for required enrollment forms. Lecture. Transfer: (CSU)</p>	<p>BUSAD 331—BEGINNING COMPUTER ACCOUNTING SOFTWARE 1 UNIT <i>18 Lecture hours</i> <i>Recommended for Success: Before enrolling in this course, students are strongly advised to know the complete accounting cycle.</i> A beginning course using features of computerized accounting software package(s). Will enable students to learn and apply the features of computerized accounting software to record, process and communicate financial accounting data for a service or product based company in the small business setting. - (A-F or P/NP) Lecture.</p>
<p>BUSAD 274—HUMAN RESOURCES MANAGEMENT 3 UNITS <i>54 Lecture Hours</i> 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) Transfer: (CSU)</p>	<p>BUSAD 332—INTERMEDIATE COMPUTER ACCOUNTING SOFTWARE 1 UNIT <i>18 Lecture hours</i> <i>Prerequisites: Satisfactory completion of BUSAD 331</i> A continuation of the beginning course using features of computerized accounting software package(s). Course is designed to enable students to learn and apply the features of computerized accounting software to record, process and communicate financial accounting data for a Merchandising Company in the small business setting. Lecture.</p>
	<p>BUSAD 333—COMPUTER ACCOUNTING SOFTWARE 2 UNITS <i>36 Lecture hours</i> <i>Recommended for Success: Before enrolling in this course, students are strongly advised to know the complete accounting cycle.</i> Combination of BUSAD 331 and BUSAD 332. Beginning course in the use of computerized</p>

accounting software package(s). Students will learn and apply the features of computerized accounting software in order to record, process and communicate financial accounting data for a service company and merchandising corporation in the small business setting. (A-F or P/ NP) Lecture.

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.

Emphasis on US Federal Income Tax, including; preparation of Federal Tax Returns, supplemental Federal schedules for individuals and business forms, and computation of social security and other self-employment taxes. Field trips are not required. (A-F or P/ NP)

BUSAD 358—SALES AND ADVERTISING PROMOTION 3 UNITS

54 Lecture hours

Fundamentals of personal selling and advertising. The sales process is defined and analyzed. The use of a variety of advertising techniques, methods, and media are explored. Stresses practical application. Lecture.

BUSAD 364—TOTAL QUALITY MANAGEMENT 3 UNITS

Also offered as: SUPR - 364

54 Lecture Hours

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

Introduction to W. Edward Deming's philosophy of Total Quality Management and its implications for improving the competitiveness of American business in the international economy. A variety of related management topics is also presented. Field trips are not required. (A-F or P/ NP)

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.

CHEM (Chemistry)

Dean: Brian Sanders

Division Office: Science Building, Room 126

Phone: (209) 575-6173

Division website: www.mjc.edu/current/programs/divdeps/sme/

Instructors: Joseph Caddell, Laura Maki, Mary Roslaniec, Suzanne Hulsey

CHEM 101—GENERAL CHEMISTRY 1 5 UNITS

54 Lecture hours, 72 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, thermodynamics, atomic structure and quantum mechanics, periodic properties, chemical bonding, molecular structure, intermolecular attractions and properties of liquids and solids, and properties of solutions. (A-F or P/ NP) Lecture/ Lab /Discussion. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:A)(CSU-GE: B1, B3) (IGETC: 5A, 5C)

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. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:A)(CSU-GE: B1, B3) (IGETC: 5A, 5C)

CHEM 112—ORGANIC CHEMISTRY 1 5 UNITS

54 Lecture hours, 72 Lab hours, 18 Discussion hours

Prerequisite: Satisfactory completion of CHEM 102.

Nomenclature, structure, reactions and spectroscopy of carbon containing compounds. Laboratory emphasizes basic techniques of synthesis, purification, and identification of organic compounds. (A-F or P/ NP) Lecture/Lab /Discussion. **Transfer:** (CSU, UC) **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.

CHEM 113 is the second semester in a yearlong sequence of an organic chemistry course for science majors. Topics to be covered include nomenclature, physical properties and reactions of aromatic compounds, aldehydes, ketones, carboxylic acids, carboxylic acid derivatives, amines 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. (A-F or P/ NP) Lecture/Lab. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: A)(CSU-GE: B1, B3) (IGETC: 5A, 5C)

CHEM 142—PRE-GENERAL CHEMISTRY 3 UNITS

36 Lecture hours, 18 Discussion hours

Corequisite: or satisfactory completion of 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 classification of matter, nomenclature, gas laws, chemical formula, molar mass, empirical formula, chemical reactions, atomic and molecular structure, measurements and the metric system, chemical reactions and stoichiometry, aqueous solutions and fundamentals of acids and bases (A-F or P/ NP) Lecture /Discussion. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:A)(CSU-GE: B1) (IGETC: 5A)

CHEM 143—INTRODUCTORY COLLEGE CHEMISTRY 5 UNITS

54 Lecture hours, 54 Lab hours, 18 Discussion hours

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

Recommended for Success: Satisfactory completion of MATH 90.

Designed to meet the requirements for certain nursing, dental hygiene, physical therapy, agriculture and forestry programs. Principles of general, inorganic chemistry with an introduction to organic chemistry. Uses the factor-label method of problem solving. Credit not granted to students who have completed CHEM 142. (A-F or P/ NP) Lecture/Lab/Discussion. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

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. Uses inductive and deductive problem solving methods. (A-F or P/ NP) Lecture/Lab. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:A)(CSU-GE: B1, B3) (IGETC: 5A, 5C)

CHEM 150—EXPLORING OUR CHEMICAL ENVIRONMENT 3 UNITS

54 Lecture hours

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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (CC CHEM 120) **General Education:** (MJC-GE: A) (CSU-GE: B1) (IGETC: 5A)

CHEM 164—INTRODUCTORY CHEMISTRY LABORATORY 2 UNITS

18 Lecture hours, 54 Lab hours

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

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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:A) (CSU-GE: B3) (IGETC: 5C)

CLDDV (Child Development)

Dean: Patrick Bettencourt

Division Office: John Muir Hall, Room 157

Phone: (209) 575-6343

Division website: www.mjc.edu/prospective/programs/fcs/index.html

Instructors: Cheryl Williams-Jackson, Deborah Laffranchini, Laurie Hatch, Pam Guerra-Schmidt

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

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

54 Lecture Hours

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

Examination of the underlying theoretical principles of developmentally appropriate practices applied to educational programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, emotional, creative, and intellectual development for children 0-8. Review of the historical roots of early educational programs and the evaluation of the professional practices promoting advocacy, ethics, and professional identity. Field trips might be required. (A-F or P/NP)

Transfer: (CSU) (CC CHILD 3)

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 processes and environmental factors. While studying developmental theory and investigative research methodologies, students will observe children, evaluate individual differences and analyze characteristics of development at various stages. Field trips might be required. (A-F or P/NP)

Transfer: (CSU, UC) (CC CHILD 1) **General Education:** (MJC-GE: B, E) (CSU-GE: D7, E) (IGETC: 4G)

CLDDV 107—INTRODUCTION TO CURRICULUM 3 UNITS

54 Lecture hours

Formerly listed as CLDDV 107 - Introduction to Child Development Curriculum

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

Overview of knowledge and skills related to providing appropriate curriculum and environments for young children from birth to age eight. Examine a teacher's role in supporting development and fostering the joy of learning for all young children using observation and assessment strategies emphasizing the essential role of play. Overview of content areas will include, but not be limited to: principles of learning, models of curricular philosophies and programs, and integration of domains of development emphasizing language and literacy, social and emotional learning, sensory learning, art and creativity, math, and science, supporting inclusion of children with special needs. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU)

CLDDV 109—CHILD - FAMILY - COMMUNITY 3 UNITS

54 Lecture hours

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

Examination of the developing child in a societal context focusing on the interrelationship of family, early care and education, elementary education, peer group, community, and media, emphasizing historical and socio-cultural factors including culture, religion, economics, and politics. Processes of socialization and identity development will be highlighted, showing the importance of respectful, reciprocal relationships that support and empower children and their families. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU) (CC CHILD 22)

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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU) **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 and satisfactorily complete CLDDV 101 and satisfactorily complete CLDDV 103 or (CLDDV 104 and CLDDV 105).

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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU) (CC CHILD 23)

CLDDV 122—LEARNING ENVIRONMENTS FOR INFANTS AND TODDLERS 3 UNITS

54 Lecture hours

Recommended for Success: Before enrolling in this course students are strongly advised to satisfactorily complete CLDDV 101 or CLDDV 103 or (CLDDV 104 and CLDDV 105.)

Development and evaluation of the physical and social learning environments for infants and toddlers including goals, curriculum, materials, state regulations, equipment, and interaction of children, staff, and families. (A-F or P/NP) Lecture. **Transfer:** (CSU)

CLDDV 125 — INFANT AND TODDLER DEVELOPMENT AND CARE 3 UNITS

54 Lecture hours

Prerequisite: Satisfactory completion of CLDDV 103 or CLDDV 104 and CLDDV 105.*Recommended for Success:* Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Infant and toddler developmental milestones and practices for stimulation and learning. Exploration and assessment of the infant and toddler curriculum and environment, family involvement, educational theory, and recent brain research concerning the first three years of life. Health, safety, nutrition, aspects of group care, and the review of Department of Social Services Regulation compliance in infant and toddler programs. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU)(CC CHILD 25)

CLDDV 126C,D,E—INCLUSION SPECIAL NEEDS PRACTICUM 3 - 5 UNITS

C=18 Lecture hours, 108 Lab hours, D=36 Lecture hours, 108 Lab hours, E= 36 Lecture hours, 162 Lab Hours

Prerequisite: Satisfactory completion of CLDDV 103.*Corequisite:* Concurrent enrollment in or satisfactory completion of CLDDV 121.*Recommended for Success:* Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.*Limitations on Enrollment:* TB clearance is required, Title 22.

Child centered, play-oriented approaches to student teaching experience under guided supervision with toddlers and/or preschool-aged children with an identified disability. Build a comprehensive understanding of children and families through individualized, relationship-based (DIR Floortime) caregiving including the development of relationships with families. Build connections between theory and practice, develop professional behaviors, practice positive and nurturing guidance techniques, and utilize facilitation-based teaching through authentic observation, documentation, screening, and assessment while designing, facilitating, and evaluating curriculum that support an inclusive and culturally diverse environment. Will support IFSP/IEP goals and may include participation in an educational meeting. CLDDV 130 – Supervised Field Experience – may NOT be used as a substitute for lab practicum. - Field trips may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** CSU

CLDDV 127B,C,D—INFANT/TODDLER PRACTICUM 2-5 UNITS

B= 18 Lecture hours, 54 Lab hours; C=18 Lecture hours, 108 Lab hours; D= 18 Lecture hours, 162 Lab hours

*Concurrent enrollment in or satisfactory prior completion of CLDDV 125.**Recommended for Success:* Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.*Enrollment limited to those who can present evidence of TB clearance.*

Child-centered, play-oriented approaches to student teaching experience under guided supervision with infants and toddlers who may have a disability. Build a comprehensive understanding of children and families through individualized, relationship-based caregiving including the development of relationships with families. Build connections between theory and practice, develop professional behaviors, practice positive and nurturing guidance techniques, and utilize facilitation-based teaching through authentic observation, documentation, screening, and assessment while designing, facilitating and evaluating curriculum that support an inclusive and culturally diverse environment. Will support IFSP goals and may include participation in an educational meeting. CLDDV 130 – Supervised Field Experience - may NOT be used as a substitute for lab practicum. Field trips may be required. (A-F or P/NP) Lecture/Laboratory. **Transfer:** (CSU)(CC CHILD 16)

CLDDV 128B,C,D,E—PRESCHOOL PRACTICUM 2 - 5 UNITS

B=18 Lecture hours, 54 Lab hours, C=18 Lecture hours, 108 Lab hours, D=18 Lecture hours, 162 Lab hours, E=18 Lecture hours, 216 Lab hours

Prerequisite: Satisfactory completion of CLDDV 101 or CLDDV 103 or CLDDV 104 and CLDDV 105.*Recommended for Success:* Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and satisfactorily complete or be concurrently enrolled in CLDDV 121.*Limitations on Enrollment:* TB clearance is required.

Child centered, play-oriented approaches to student teaching experience under guided supervision with preschool-aged children who may have a disability. Build a comprehensive understanding of children and families through individualized, relationship-based caregiving including the development of relationships with families. Build connections between theory and practice, develop professional behaviors, practice positive and nurturing guidance techniques, and utilize facilitation-based teaching through authentic observation, documentation, screening, and assessment while designing, facilitating, and evaluating curriculum that support an inclusive and culturally diverse environment. Will support IEP goals and may include participation in an educational meeting. CLDDV 130 – Supervised Field Experience – may NOT be used as a substitute for lab practicum. - Field trips may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU)(CC CHILD 16)

CLDDV 150—ADMINISTRATION OF CHILDREN'S PROGRAMS 3 UNITS

54 Lecture hours

*Formerly listed as CLDDV 250**Prerequisite:* Satisfactory completion of CLDDV 103, or CLDDV 104 and CLDDV 105

Laws governing private and public programs serving young children in California. Aspects of records, reports, health and safety, finances, staff management, curriculum development, spatial and equipment requirements, and parent-community relationships from the administrator's point of view. Lecture. **Transfer:** (CSU)(CC CHILD 30)

CLDDV 151—ADVANCED ADMINISTRATION OF CHILDREN'S PROGRAMS 3 UNITS

54 Lecture hours

*Formerly listed as CLDDV 270**Prerequisite:* Satisfactory completion of CLDDV 150

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 Recommended for Success boards. Designed to provide knowledge of methods and principles for working with adults in a supervisory capacity in Early Care and Education settings. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU)(CC CHILD 31)

CLDDV 154—ADULT RELATIONSHIPS AND MENTORING IN SCHOOLS 2 UNITS

36 Lecture hours

*Formerly listed as CLDDV 264**Prerequisite:* Satisfactory completion of CLDDV 101, CLDDV 103, or (CLDDV 104 and CLDDV 105)

Impact of staff interaction on children and adults in the classroom environment. Roles and functions of adults as professionals. - Field trips may be required. Lecture. (A-F or P/NP)

Transfer: CSU**CLDDV 160—ATYPICAL DEVELOPMENT 3 UNITS**

54 Lecture hours

*Formerly listed as CLDDV 277**Recommended for success:* ENGL 50, CLDDV 103, or CLDDV 104 and CLDDV 105

Examines the interaction of genetic, biological, and environmental influences in the prenatal, natal, and postnatal environment that contribute to the development of the atypical child. Identification of a variety of special needs in children from birth to 12 years of age. Factors influencing development will be explored including family, community, and culture as the child is included in all environments. Lecture. **Transfer:** (CSU) **General Education:** (MJC-GE: B)

COURSES: **CLDDV - CMPET**

CLDDV 163—WORKING WITH CHILDREN WITH SPECIAL NEEDS 3 UNITS

54 Lecture hours

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

Introduction to inclusion of children with special needs, from infancy to adolescence in the home, school, and community. Includes laws and policies. Emphasis on cognitive, social, emotional, and physical development for the child with disabilities in care and educational settings. Collaboration with parents as partners and methods for working with professionals. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU)(CC CHILD 19)

CLDDV 167—OBSERVATION AND ASSESSMENT 3 UNITS

54 Lecture hours

Prerequisite: Satisfactory completion of CLDDV 103 or CLDDV 104 and CLDDV 105.

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

Focus on 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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU)

CLDDV 262—DIVERSITY IN EDUCATIONAL SETTINGS 3 UNITS

54 Lecture hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CLDDV 103 or satisfactorily complete CLDDV 104 and satisfactorily complete CLDDV 105 and 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 anti-bias approaches supporting all children in becoming competent members of a diverse society. Course includes self-examination and reflection on issues related to social identity, stereotypes and bias, social and educational access, media, and schooling. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU)**General Education:** (MJC-GE: B)(CSU-GE: D7)

CLDDV 266—MENTOR TEACHER SEMINAR ½ UNIT

9 Lecture hours

Formerly listed as CLDDV 266 - Mentor Seminar

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

Master Teachers and Site Supervisors attend seminars to explore issues related to their role as supervisors and mentors of early childhood teachers and child development students. - Field trips may be required. (Non-Graded course) Lecture. **Transfer:** (CSU)

CLDDV 267—DIRECTOR SEMINAR ½ UNIT

9 Lecture hours

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

Directors, site supervisors and other administrators of early childhood programs attend monthly seminars to explore issues related to professional duties. Seminars will include quality improvement efforts, advocacy, supervision and mentoring of colleagues. Seminar content will be individualized to meet the needs of participants. - Field trips may be required. (Non-Graded course) Lecture. **Transfer:** (CSU)

CMPET (Computer Electronics)

Dean: Pedro Mendez

Office: John Muir 258W

Phone: (209) 575-6332

Division website: www.mjc.edu/prospective/programs/teched/electech/

Instructors: Adrian De Angelis, Jim Howen, Timothy Vaughan

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 CMPSC 201 or concurrently enroll in CMPSC 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 are not required. (A-F or P/NP) **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. **Transfer:** CSU.

CMPET 212—DIGITAL PRINCIPLES AND CIRCUITS 3 UNITS

36 Lecture hours, 72 Lab hours

Prerequisite: Satisfactory completion of MATH 70 or concurrent enrollment.

Also offered as ELTEC 212

Introduction to digital circuits. Use and application of digital components in electronic devices and computers. Interfacing input and output devices to digital circuits. Introduction to programmable logic devices. Materials fee required. Lecture/Laboratory. **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) **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. **Transfer:** CSU

CMPET 234—ADVANCED TOPICS IN PROGRAMMABLE LOGIC CONTROLLERS **2 UNITS**

18 Lecture hours, 54 Lab hours

*Recommended for Success: Satisfactory completion of ELTEC 232/CMPET 232 or equivalent course.**Also offered as ELTEC 234*

Advanced study of programmable logic controllers and complete controller systems. Emphasis on component selection, design and operation of industry-like controller systems. Lecture/Laboratory. (A-F Only) **Transfer:** (CSU)

CMPET 269—NETWORK + CERTIFICATION TRAINING LAB **1 UNIT**

54 Lab hours

*Concurrent Enrollment: Satisfactory completion of CMPSC 263**Recommended for Success: Satisfactory completion of any introductory computer course.**Also offered as CMPSC 269.*

Network + is quickly becoming the standard for introductory-level industry certification. Designed for those interested in a career in network support, this vendor-neutral certification takes the student through installing and configuring a network client. This laboratory course along with the CMPSC 263 course provides preparation for CompTIA's Network+ certification exam. Extensive network lab projects will be required. Field trips may be required. Laboratory. Materials fee required. **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.

CMPGR

(Computer Graphics Applications)

Dean: Cecelia Hudelson**Division Office:** Founders Hall 100**Phone:** (209) 575-6129**Division website:** mjc.edu/prospective/programs/bbss/**Instructors:** Joel Hagen, Brian Sinclair**CMPGR 201—ANIMATION: A GLOBAL VIEW ART IN MOTION** **3 UNITS**

54 Lecture hours

History of animation and its relationship to societies and cultures. Explores the development of animation from its earliest attempts in prehistoric times through the present day integration of technology. Strategies for production are presented, including animation techniques, design, layout, editing, timing, composition, color, lighting, music, sound effects, voice, story, concept, content, theme, historical relationship, social context, ethical context, purpose, audience, and philosophy. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU) **General Education:** (MJC-GE:C)

CMPGR 202—INTRODUCTION TO COMPUTER GRAPHICS **3 UNITS**

36 Lecture hours, 54 Lab hours

*Also offered as ART 102 - Introduction to Computer Graphics**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.*

Introduction to computer graphics using various applications and tools. Topics explored include but are not limited to: basic compositional concepts, original image creation, photographic editing, scanning, printing, 3D-animation, digital sound editing, and digital drawing. (A-F or P/NP) Lecture/Lab. (MJC Activities). **Transfer:** (CSU, UC) General Education: (CSU-GE: C1)

CMPGR 213—APPLIED COMPUTER GRAPHICS **3 UNITS**

36 Lecture hours, 54 Lab hours

*Also offered as ART 103**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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** CSU

CMPGR 214—DIGITAL CAPTURE FOR COMPUTER GRAPHICS **3 UNITS**

36 Lecture hours, 54 Lab hours

Recommended for Success: Satisfactory completion of any previous computer graphics course.

Explore digital capture and image editing techniques using such hardware devices as scanners, capture boards, digital cameras and video. Students must have access to a digital camera. Field trips may be required. Lecture/Laboratory. Materials fee required. **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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU)(CC CMPSC 11)

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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** CSU

CMPGR 219—COMPUTER GRAPHICS PORTFOLIO REVIEW **1 UNIT**

18 Lecture hours

*Also offered as ART 119**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 may be required. (A-F Only) Lecture. **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 a computer is organized; manipulating a mouse, including

COURSES: **CMPGR**

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 may be required. (A-F or P/NP) Lecture/Lab. **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 may be required. (A-F or P/NP) Lecture/Lab. **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 may be required. (A-F or P/NP) Lecture/Lab. **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 may be required. (A-F or P/NP) Lecture/Lab. **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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** CSU

CMPGR 262—EXPLORING THE WORLD WIDE WEB 1 UNIT

18 Lecture hours, 18 Lab hours

Introduction to the World Wide Web. Use of a graphical browser for accessing, viewing, and saving Web documents. Use of E-mail, search engines and bookmarks. Current and emerging Web technologies, and the impact on education, business, organizations, and our professional and personal lives. Lecture/Laboratory. Materials fee required. (MJC Activities). **Transfer:** (CSU)(CC CMPSC 10)

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, telnet 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. **Transfer:** CSU

CMPGR 264—PUBLISHING ON THE WORLD WIDE WEB 3 UNITS

36 Lecture Hours, 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CMPGR 262.

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) **Transfer:** (CSU)(CC CMPSC 12)

CMPGR 265—MULTIMEDIA ON THE WORLD WIDE WEB 3 UNITS

36 Lecture hours, 54 Lab hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have satisfactorily completed CMPGR 264.

Intermediate course covering multimedia components of the World Wide Web. Development with animation, sound, and video. Emphasis on further development of programming techniques and skills for advanced features for web pages. Extensive hands-on lab experience. Field trips may be required. (A-F or P/NP) Lecture/Lab **Transfer:** (CSU) **General Education:** (MJC-GE:2)

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 **Transfer:** CSU

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

36 Lecture hours, 54 Lab hours

Recommended for Success: Satisfactory completion of CMPGR 202 or ART 102.

Introduction to Macromedia'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. Lecture/Laboratory. Materials fee required. **Transfer:** (CSU)(CC CMPSC 19)

CMPGR 269—FLASH: WEB GRAPHICS AND ANIMATION 2 3 UNITS

36 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of CMPGR 268

In-depth look into how FLASH is effectively used by real-world interactive designers and developers. Explore advanced FLASH concepts and tools such as dynamic text, tell-targeting movie clips, drop-down menus, scrolling text, scriptable masks, embedded video, streaming and event sound, and the integration of FLASH with HTML. Gain an understanding of how to use Action Scripting for more powerful interactivity and animation by exploring the use of variables, properties, expressions, functions, and operators. Bring together the FLASH methods learned into the creation of a final, online portfolio presentation. Lecture/Laboratory. Materials fee required. **Transfer:** CSU

CMPGR 284—DESKTOP VIDEO ANIMATION 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.

Fundamental skills in animation and special effects concepts and techniques utilizing computers and digital video media. - (A-F or P/NP) (MJC Activities). Lecture/Lab. **Transfer:** CSU

CMPGR 287—INTRODUCTION TO MULTIMEDIA**3 UNITS***36 Lecture hours, 54 Lab hours**Recommended for Success: Satisfactory completion of Basic Computer literacy course such as CMPSC 201.*

Introduction to multimedia software and hardware on microcomputers. Students will have intensive "hands on" experience working with a variety of media such as text, numbers, sound, music, graphics, animation and video. Techniques of media capture, generation and editing and subsequent interactive multimedia development will be explored. Field trips may be required. Lecture/Laboratory. Materials fee required. **Transfer:** CSU

CMPGR 288—INTERMEDIATE MULTIMEDIA**3 UNITS***36 Lecture hours, 54 Lab hours**Prerequisite: Satisfactory completion of CMPGR 287*

Continuation of Multimedia concepts and applications. Working with a variety of media forms such as text, numbers, sound, music, graphics, animation and video. Emphasis is placed on further development of scripting and interactive design. Discussion of needs assessment, design issues, implementation and presentation will be combined with "hands on" projects. Field trips may be required. - Lecture/Laboratory. Materials fee required. **Transfer:** CSU.

CMPGR 298A,B—SPECIAL TOPICS IN COMPUTER GRAPHICS 1,2 UNITS*A=18 Lecture hours, B=36 Lecture hours*

Participation in discussion, analysis, and evaluation of a special topic in computer graphics, microcomputer applications, and related technologies. Topic to be announced in class schedule. Field trips may be required. Lecture or Lecture/Lab. **Transfer:** CSU

CMPSC (Computer Science)**Dean (Interim):** Cecelia Hudelson**Division Office:** Founders Hall 100**Phone:** (209) 575-6129**Division website:** mjc.edu/prospective/programs/bbss/**Instructors:** Brian Larson, Dale Phillips, Kathleen Short, Chris Vaughn, John Zamora**CMPSC 103—SYMBOLIC LOGIC****3 UNITS***54 Lecture hours**Also offered as PHILO 103.*

An introduction to modern deductive logic; includes sentential and predicate logic with identity theory and definite descriptions. Lecture. Not offered every semester. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: D2)(CSU-GE: A3)

CMPSC 201—GENERAL COMPUTER LITERACY**3 UNITS***36 Lecture hours, 54 Lab hours*

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 may be required. (A-F or P/ NP) Lecture/Lab. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:D2)

CMPSC 202—BUSINESS INFORMATION SYSTEMS**3 UNITS***36.00 Lecture Hours, 54.00 Lab Hours,**Prerequisite: Satisfactory completion of CMPSC 201 or CMPSC 204 or 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-For P/NP) **Transfer:**(CSU, UC)

CMPSC 203—TECHNICAL COMPUTER LITERACY**3 UNITS***36 Lecture hours, 54 Lab hours*

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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU) **General Education:** (MJC-GE:D2)

CMPSC 204—INTRODUCTION TO PROGRAMMING**3 UNITS***36 Lecture hours, 54 Lab hours**Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 90.*

First course in computer programming 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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC)

COURSES: **CMPS**C

CMPSC 205—PROBLEM SOLVING AND PROGRAMMING 1 4 UNITS

54 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of 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 may be required. (A-F or P/NP) Lecture/Lab.

Transfer: (CSU, UC) (CC CMPSC 22) **General Education:** (MJC-GE: D2)

CMPSC 206—INTRO TO UNIX/LINUX SYST & PROGRAMMING 3 UNITS

36 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of CMPSC 204.

Introduction to the UNIX operating system using Linux. Coverage will include using UNIX shells, 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 XWindows graphical user interface. Extensive hands-on experience using UNIX operating system and programming within the UNIX environment. - Field trips may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) (CC CMPSC 9)

CMPSC 210—UNIX/LINUX ADMINISTRATION 3 UNITS

36 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of 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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC)

CMPSC 213—PROGRAMMING WITH VISUAL BASIC 3 UNITS

36 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of 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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) (CC CMPSC 28) **General Education:** (MJC-GE: D2)

CMPSC 214—ADVANCED VISUAL BASIC 3 UNITS

36 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of 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. **Transfer:** (CSU, UC)

CMPSC 216—SCRIPT PROGRAMMING FOR THE WEB 3 UNITS

36 Lecture hours, 54 Lab hours

*Formerly listed as CMPS*C 216 - Javascript Programming for the Internet

Prerequisite: Satisfactory completion of CMPSC 204.

Developing World Wide Web applications with HTML and scripting tools such as python, java script, 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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC)

CMPSC 219—DISCRETE STRUCTURES FOR COMPUTER SCIENCE 4 UNITS

54 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of CMPSC 205 and MATH 121.

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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

CMPSC 220—DATABASE SERVER ADMINISTRATION 3 UNITS

36 Lecture hours, 54 Lab hours

*Formerly listed as CMPS*C 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. **Transfer:** CSU

CMPSC 225—DATABASE PROGRAMMING WITH SQL 3 UNITS

36 Lecture hours, 54 Lab hours

*Formerly listed as CMPS*C 225 - SQL Database Implementation

Prerequisite: Satisfactory completion of CMPSC 275 or 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. **Transfer:** (CSU)

CMPSC 231—INTERMEDIATE WORD PROCESSING 3 UNITS

36 Lecture hours, 54 Lab hours

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. **Transfer:** (CSU) (CC OFTEC 141)

CMPSC 241—ASSEMBLY LANGUAGE PROGRAMMING 4 UNITS

54 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of 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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: D2)

CMPSC 261—PROBLEM SOLVING AND PROGRAMMING 2 4 UNITS

54 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of 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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) (CC CMPSC 24) **General Education:** (MJC-GE: D2)

CMPSK 263—NETWORKING ESSENTIALS

54 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of CMPSK 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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** CSU

4 UNITS**CMPSK 289—DIRECTORY SERVICES**

36 Lecture hours, 54 Lab hours

Recommended for Success: Before enrolling in this course, students are strongly advised to either complete CMPSK 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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** CSU

3 UNITS**CMPSK 264—WINDOWS SERVER OS**

36 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of CMPSK 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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU) **General Education:** (MJC-GE: D2)

3 UNITS**CMPSK 291—WINDOWS PROGRAMMING WITH VISUAL STUDIO 4 UNITS**

54 Lecture hours, 54 Lab hours

*Formerly listed as CMPSK 291 - Windows Programming With Visual C++**Prerequisite: Satisfactory completion of CMPSK 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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: D2)

CMPSK 275—DATABASE MANAGEMENT SYSTEMS**3 UNITS***Formerly listed as: CMPSK - 275: Database Management Systems/Microcompute, CMPSK - 275: Database Management Systems/Microcomputer*

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of CMPSK 203 or CMPSK 201 or CMPSK 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) **Transfer:** (CSU) (CC CMPSK 55) **General Education:** (MJC-GE: D2)

CMPSK 276—WEB DATABASE DEVELOPMENT**3 UNITS**

36 Lecture hours, 54 Lab hours

Formerly listed as CMPSK 276 - Introduction to Data Warehousing

Prerequisite: Satisfactory completion of CMPSK 275 or CMPSK 225 or CMPSK 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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU) **General Education:** (MJC-GE: D2)

CMPSK 278—SPREADSHEET SOFTWARE**3 UNITS**

36 Lecture hours, 54 Lab hours

Recommended for Success: Any introductory computer class.

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. Lecture/Laboratory. Materials fee required. **Transfer:** (CSU) (CC CMPSK 30)

CMPSK 281—ADVANCED NETWORKING & SECURITY**3 UNITS**

36 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of CMPSK 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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** CSU

CMPSK 294—COMPUTER SCIENCE FINAL PROJECT**3 UNITS**

36 Lecture hours, 54 Lab hours

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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** CSU

CMPSK 298A,B,C—SPECIAL TOPICS IN COMPUTER SCIENCE 1,2,3 UNITS

A=18 Lecture hours, B=36 Lecture hours, C=54 Lecture hours

Prerequisite: Varies with topic.

Participation in discussion, analysis, and evaluation of a special topic in computer science, microcomputer applications, and related technologies. Topic to be announced in class schedule. Twelve maximum units in any combination. Fields trips may be required. Lecture. Materials fee required. **Transfer:** (CSU)

COLSK

 (College Skills)

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.

Provides success strategies to enhance academic and lifelong learning skills for first year college students. Exploration of topics such as motivation and attitudes, values, goal setting, decision-making processes, critical and creative thinking, personal health, interpersonal communication, behavioral expectations and etiquette, personality theories, cultural diversity, information & technology competence, as well as techniques for maximizing the ability to succeed as a lifelong learner. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: E) (CSU-GE:E)

Dance

For dance course descriptions, please see *THETR (Theatre)* or *PEC (Physical Education: Co-Ed Activities)*.

EASCI (Earth Science)

Dean: Brian Sanders

Division Office: Science Building, Room 126

Phone: (209) 575-6173

Division website: www.mjc.edu/current/programs/divdepts/sme/

Instructors: Noah Hughes

EASCI 161—EARTH SCIENCE

54 Lecture Hours, 54 Lab Hours

4 UNITS

An introductory study of the several branches of earth science: geology, oceanography, meteorology, and astronomy. Covers topics including natural resources, minerals, rocks, volcanism, plate tectonics, earthquakes, weathering, erosion, geological time, fresh water, ocean water, ocean currents, the ocean floor, atmosphere, clouds, storms, the sun, the moon, and the solar system. Field trips are required. (A-F or P/NP) **Transfer:** (CSU, UC) (CC ESC 33)

General Education: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

EASCI162—INTRODUCTION TO OCEANOGRAPHY

54 Lecture hours, 54 Lab hours

4 UNITS

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. **Transfer:** (CSU, UC) (CC ESC 50) **General Education:** (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

ECON (Economics)

Dean: Cecelia Hudelson

Division Office: Founders Hall 100

Phone: (209) 575-6129

Division website: www.mjc.edu/prospective/programs/bbss/

Instructors: Rose La Mont

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) **Transfer:** (CSU, UC) (CC ECON 10) **General Education:** (MJC-GE: B) (CSU-GE: D2) (IGETC: 4B)

ECON 102—PRINCIPLES OF MICROECONOMICS

3 UNITS

Formerly listed as: ECON - 102: Economic Principles: Microeconomics

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.

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) **Transfer:** (CSU, UC) (CC ECON 11) **General Education:** (MJC-GE: B) (CSU-GE: D2) (IGETC: 4B)

ECON 115—ECONOMIC HISTORY OF THE UNITED STATES

3 UNITS

54 Lecture hours

Recommended for Success: Satisfactory completion of ENGL 101

Also offered as HIST 115

Analysis of origins and development of business, labor and agriculture from the colonial period to the present. Emphasis on the federal government's part in the development and regulation of business, labor and agriculture; the government's role in the national economic process. Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:B)(CSU-GE:D2, D6) (IGETC: 4B, 4F) (AI-Group A)

EHS

(Environmental Horticultural Science)

Dean: Mark A. Anglin

Division Office: Agriculture, Room 100

Phone: (209) 575-6200

Division website: www.mjc.edu/prospective/programs/agens/index.html

Instructors: David Baggett, Gail Brumley, Dale Pollard

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 may be required. Lecture.

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.

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.

EHS 58—PREPARATORY FLORAL DESIGN 3 UNITS

36 Lecture hours, 54 Lab hours

Formerly listed as OH 58

A preparatory course in commercial floristry teaching basic theory, techniques, and skills currently practiced in the floral design industry. Construction of basic floral products for resale; cut flower processing and industry sales practices. Field trips required. Lecture/Laboratory. Materials fee required.

EHS 62—PREPARATORY ORNAMENTAL SHRUB AND TREE IDENTIFICATION 3 UNITS

36 Lecture hours, 54 Lab hours

Formerly listed as OH 62

Preparation in the identification, growth habits, culture and use of large shrubs and trees adapted to climates of California central valleys. Field laboratories, including some on Saturdays, are required. Field trips required. Lecture/Laboratory.

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) **Transfer:** (CSU, UC)

EHS 201—PLANT IDENTIFICATION AND USAGE 1 3 UNITS

36 Lecture hours, 54 Lab hours

Recommended for Success: Satisfactory completion of EHS 210 and/or PLSC 200.

Formerly listed as EHS 201-Plant Materials and Usage 1.

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) **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. (A-F Only) Lecture Lab. **Transfer:** (CSU, UC)

EHS 210—INTRODUCTION 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. **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. **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. **Transfer:** (CSU)

EHS 235—PLANT PROPAGATION/PRODUCTION 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 with a minimum grade of C or better satisfactorily complete EHS 210 with a minimum grade of C or better and/or.

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. Field trips are required. (A-F Only) **Transfer:** (CSU)

EHS 276—LANDSCAPE MAINTENANCE 3 UNITS

36 Lecture hours, 54 Lab hours

Recommended for Success: Satisfactory completion of EHS 210. Formerly listed as OH 276 - Park and Landscape Maintenance.

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) **Transfer:** CSU

EHS 278—LANDSCAPE CONSTRUCTION AND INSTALLATION 3 UNITS

36 Lecture hours, 54 Lab hours

Recommended for Success: Satisfactory completion of EHS 210. Formerly listed as OH 278 - Landscape Engineering.

Fundamentals of landscape construction, including soil preparation, paving and construction materials, hand and power tool use, turf and plant installation, plan reading, estimating and bidding preparation; also covers local codes and state requirements and prepares students to pass the C-27 Landscaping Contractor's License exam. Field trips required. Lecture/Laboratory. (A-F Only) **Transfer:** CSU

EHS 280 —BEGINNING FLORAL DESIGN 3 UNITS

36 Lecture hours, 54 Lab hours

Introduction into the concepts and practices of floral design. In-depth study of the principles and elements of design used in floral composition. Principles of design as well as the design process and implement this process through the medium of floral materials. Hands-on laboratory experiences and practice in the art of floral design. American Geometric Line design is primary focus. Materials fee required. Field trips are required. (A-F Only) Lecture/Lab. **Transfer:** CSU

EHS 281—ADVANCED FLORAL DESIGN 3 UNITS

36 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of EHS 280. Formerly listed as OH 281 - Commercial Floristry Advanced Floral Design

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) **Transfer:** CSU

EHS 291—ENVIRONMENTAL HORTICULTURE SCIENCE 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. May be completed up to two times. Field trips required. (A-F or P/NP) Lecture. **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. Six maximum completions. Field trips may be required. Lecture. (A-F Only)

ELTEC (Electronics Technology)

Dean: Pedro Mendez

Office: John Muir 258W

Phone: (209) 575-6332

Division website: www.mjc.edu/prospective/programs/teched/electech/

Instructors: Adrian De Angelis, Jim Howen, Timothy Vaughan

ELTEC 205—ELECTRONICS FABRICATION AND ASSEMBLY TECHNIQUES 3 UNITS

Also offered as: MFGA - 205: Electronics Fabrication and Assembly Techniques, MFGA - 205: Electronics Fabrication and Assembly Techniques

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) **Transfer:** (CSU)

ELTEC 208—THE WORLD OF ELECTRICITY AND ELECTRONICS 3 UNITS

36 Lecture hours, 54 Lab hours

Also offered as INTEC 208

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. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU) **General Education:** (MJC-GE: A)

ELTEC 212—DIGITAL PRINCIPLES AND CIRCUITS 3 UNITS

36 Lecture hours, 72 Lab hours

Also offered as CMPET 212

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 70 with a minimum grade of C or better or concurrent enrollment.

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. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU)

ELTEC 214—MICROPROCESSOR PROGRAMMING AND INTERFACING 4 UNITS

36 Lecture hours, 108 Lab hours

Also offered as CMPET 214

Recommended for Success: Before enrolling in this course, students are strongly advised to Successfully complete ELTEC/CMPET 212 Digital Electronics.

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. **Transfer:** CSU

ELTEC 221—INSTRUMENTATION DEVICES AND SYSTEMS 3 UNITS

Also offered as: INTEC - 221: Instrumentation Devices and Systems, MFGA - 221: Instrumentation Devices and Systems

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) **Transfer:** (CSU)

ELTEC 223—INDUSTRIAL ELECTRICAL COMPONENTS AND CONTROL DEVICES 3 UNITS

36 Lecture hours, 54 Lab hours

Also offered as INTEC 223

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. Lecture/Laboratory. Materials fee required. (A-F Only) **Transfer:** CSU

ELTEC 226—MOTORS, CONTROLS AND CONTROLLERS 3 UNITS

36 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of ELTEC/INTEC 208.

Also offered as INTEC 226

Introduction to AC and DC motors and control systems. Emphasis on system troubleshooting. Use and programming of AC and DC systems. Lecture/Laboratory. (A-F Only) **Transfer:** (CSU)

ELTEC 229—COMMERCIAL AND INDUSTRIAL WIRING 3½ UNITS

36 Lecture hours, 81 Lab hours

Also offered as INTEC 229

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete (INTEC 225 OR AGM 225) AND (INTEC 208 OR 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, implementation of accepted trade practices used in installations, and common troubleshooting techniques. Field trips may be required. Materials fee required. (A-F Only) Lecture/Lab. **Transfer:** CSU

ELTEC 230—BLUEPRINT READING 1 UNIT

9 Lecture hours, 27 Lab hours

Also offered as INTEC 230.

Recommended for success: Before enrolling in this course, students are strongly advised to satisfactorily complete AGM 225 and (ELTEC/INTEC 229) and (ELTEC/INTEC 226).

Fundamental concepts of blueprint reading for electricians applicable in any field. Topics include: construction-related blueprints (residential, commercial and industrial), machinery, automation, electronics, associated systems (hydraulic, pneumatic, communication.) Lecture/Laboratory. (A-F Only) **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. **Transfer:** (CSU)

ELTEC 234—ADVANCED TOPICS IN PROGRAMMABLE LOGIC CONTROLLERS 2 UNITS

18 Lecture hours, 54 Lab hours

Recommended for Success: Satisfactory completion of ELTEC 232 or CMPET 232

Also offered as CMPET 234.

Advanced study of programmable logic controllers and complete controller systems. Emphasis on component selection, design, and operation of industry-like controller systems. Lecture/Laboratory. **Transfer:** CSU

ELTEC 265—TROUBLESHOOTING TECHNIQUES 1 UNIT

18 Lecture hours

Fast and efficient troubleshooting methods are presented and practiced. Covers single-solution problems commonly found in industrial equipment and processes, business, medicine, and everyday life. Prepares students to actively troubleshoot problems in personal and professional life. Multiple-solution problem-solving, brainstorming, and "out of the box" thinking methods also presented and practiced. This course is approved by the State of California for the DAS Electricians Training program. (A-F or P/NP) Lecture. **Transfer:** CSU

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)

ELTEC 321—PHOTOVOLTAIC SYSTEMS 3 UNITS

36 Lecture hours, 54 Lab hours

Prerequisite: Satisfactory completion of ELTEC 208 or INTEC 208 or and ELTEC 230 or INTEC 230 and ELTEC 320 or INTEC 320 and ELTEC 229 or INTEC 229 or and AGM 225 or INTEC 225 and INTEC 248.

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. Field trips may be required. (A-F Only) Lecture/Lab.

EMS (Emergency Medical Service)

Dean: Pedro Mendez
 Division Office: Regional Fire Training Center, 1220 Fire Science Lane
 Phone: (209) 575-5706

EMS 350—FIRST RESPONDER WITH HEALTHCARE PROVIDER CPR 3 UNITS

54 Lecture hours

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. **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. (A-F or P/NP)

EMS 389—EMERGENCY MEDICAL TECHNICIAN 1- LAB ½ UNIT

27 Lecture hours

Prerequisite: Satisfactory completion of EMS 350.

Corequisite: Concurrent enrollment required in EMS 390.

This is the laboratory course for 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. – (A-F Only) Lab.

EMS 390—EMERGENCY MEDICAL TECHNICIAN 1 6 UNITS

126 Lecture hours

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. (A-F Only) Lecture. **Transfer:** (CC EMS 4)

EMS 391—EMERGENCY MEDICAL TECHNICIAN 1 REFRESHER COURSE 1½ 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 re-certification as an EMT in California. Lecture. (A-F Only)

ENGL (English)

Dean (Interim): Maurice McKinnon
 Division Office: Founders Hall, Room 200
 Phone: (209) 575-6149

Division website: www.mjc.edu/current/programs/divdepts/litlang/

Instructors: Adrienne Peek; Ann Smith; Annaliese Hausler-Akpovi; Barbara Jensen; Bruce Anders; Deborah Gilbert, PhD; Denise Smith; Dimitri Keriotis; Emily Malsam; Ingrid Keriotis; James Beggs, PhD; Jason Wohlstadter, PhD; Jeffrey Netto, PhD; Jennifer Hamilton, PhD; Jenny Netto; Jillian Daly, Lillian Vallee, PhD; Michael Smedshammer, PhD; Michelle Christopherson; Nita Gopal; Optimism One; RoseLee Hurst; Sam Pierstorff; Shelly Circle; Theresa Stovall; Theron Westrope, PhD; Timothy Hobert

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 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. (A-F or P/NP) Lecture.

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 may be required. (P/NP Only) Lecture. **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 may be required. (A-F or P/NP) Lecture. **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) **Transfer:** (CSU, UC) (CC ENGL 1A) **General Education:** (MJC-GE: D1) (CSU-GE: A2) (IGETC: 1A)

ENGL 102—ADVANCED COMPOSITION & INTRODUCTION TO LITERATURE**3 UNITS***Formerly listed as: ENGL - 102: Advanced Comp and Intro to Lit**54 Lecture hours**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) **Transfer:** (CSU, UC) (CC ENGL 1B) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 103—ADVANCED COMPOSITION & CRITICAL THINKING**3 UNITS***Formerly listed as: ENGL - 103: Adv Comp & Critical Thinking**54 Lecture hours**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) **Transfer:** (CSU, UC) (CC ENGL 1C) **General Education:** (MJC-GE: D2) (CSU-GE: A3) (IGETC: 1B)

ENGL 105—CREATIVE WRITING: POETRY**3 UNITS***54 Lecture hours**Prerequisite: Satisfactory completion of ENGL 101 with a minimum grade of C or better.*

Instruction and practice in writing poetry. - (A-F or P/NP) Lecture. (MJC Activities). **Transfer:** (CSU, UC) **General Education:** (CSU-GE: C2) **Graduation:** (MJC Activities)

ENGL 106—CREATIVE WRITING: SHORT FICTION**3 UNITS***54 Lecture hours**Prerequisite: Satisfactory completion of ENGL 101 with a minimum grade of C or better.*

Instruction and practice in writing shorter forms of fiction. A maximum 6 units of creative writing transferable to University of California. - (A-F or P/NP) Lecture. (MJC Activities).

Transfer: (CSU, UC) **General Education:** (CSU-GE: C2)**ENGL 108—CREATIVE WRITING: AUTOBIOGRAPHY****3 UNITS***54 Lecture hours**Prerequisite: Satisfactory completion of ENGL 101 with a minimum grade of C or better.*

Instruction and practice in the writing of an autobiography. - (A-F or P/NP) Lecture. (MJC Activities). **Transfer:** (CSU, UC)

ENGL 109—CREATIVE WRITING; SCRIPTWRITING**3 UNITS***54 Lecture hours**Prerequisite: Satisfactory completion of ENGL 101.*

Instruction and practice in writing of dramatic scripts for film, television, and theater. - Field trips may be required. (A-F or P/NP) Lecture. (MJC Activities). **Transfer:** (CSU, UC).

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.*

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 may be required. (A-F or P/NP) Lecture. **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.*

Analysis and discussion of poetry. Field trips may be required. (A-F or P/NP) Lecture. **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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 131—INTRODUCTION TO WORLD LITERATURE 1**3 UNITS***Formerly listed as: ENGL - 131: Introduction to World Literature to 1500**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 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) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 132—INTRODUCTION TO WORLD LITERATURE 2**3 UNITS****(1500 TO PRESENT)***Formerly listed as: ENGL - 132: Introduction to World Literature (1500 to Present)**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 and satisfactorily complete ENGL 102.*

ENGL 132 is a continuation of ENGL 131, reading from the renaissance to contemporary literatures of Asian, Middle Eastern, European, and Latin American cultures. 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) **Transfer:** (CSU, UC) (CC ENGL 81) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 135—SURVEY OF AMERICAN LITERATURE TO 1850**3 UNITS***Formerly listed as: ENGL - 135: American Literature to 1850**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 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) **Transfer:** (CSU, UC) (CC ENGL 17) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

COURSES: **ENGL**

ENGL 136—SURVEY OF AMERICAN LITERATURE: 1850 TO THE PRESENT 3 UNITS

Formerly listed as: ENGL - 136: American Literature: 1850 to the Present
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 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) **Transfer:** (CSU, UC) (CC ENGL 18) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 137—SURVEY OF ENGLISH LITERATURE TO THE LATE 18TH CENTURY 3 UNITS

Formerly listed as: ENGL - 137: Survey of English Lit to 18th Century, ENGL - 137: Survey of English Literature to the 18th Century

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 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) **Transfer:** (CSU, UC) (CC ENGL 46) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 138—SURVEY OF ENGLISH LITERATURE: LATE EIGHTEENTH CENTURY TO PRESENT 3 UNITS

Formerly listed as: ENGL - 138: Survey of English Lit: 18th Century to Present, ENGL - 138: Survey of English Literature: 1700 - Present

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 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) **Transfer:** (CSU, UC) (CC ENGL 47) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 151—FOLKLORE 3 UNITS

54 Lecture hours

Formerly listed as ENGL 151 - Introduction to Folklore

Prerequisite: Satisfactory completion of ENGL 50.

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 may be required. (A-F or P/NP) Lecture. **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.

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

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 may be required. (A-F or P/NP) Lecture. **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.

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

Literary criticism and an appreciation of historical background and textual transmission of selected books of the New Testament. Field trips may be required. (A-F or P/NP) Lecture.

Transfer: (CSU, UC) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 161—FILM APPRECIATION 4 UNITS

72 Lecture Hours

Prerequisite: Satisfactory completion of ENGL 50.

Recommended for Success: Before enrolling in this course, students are strongly advised to achieve satisfactory completion of ENGL 101.

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)

Transfer: (CSU, UC) (CC ENGL 11) **General Education:** (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

ENGL 162—HISTORY OF CINEMA 3 UNITS

45 Lecture hours, 27 Lab hours

Prerequisite: Satisfactory completion of ENGL 50.

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

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. (A-F or P/NP) Lecture/Lab. **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.

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 may be required. (A-F or P/NP) Lecture.

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.

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

Introduction to literature for adolescents (ages 9-16). Includes types of literature and forms drawn from a variety of ethnic and cultural sources, and ways to promote interest, themes, and criteria for choosing materials. Field trips may be required. (A-F or P/NP) Lecture. **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.

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

Introduction to literature for children. Includes types of literature and forms drawn from a variety of ethnic and cultural sources, storytelling, ways to promote interest, and criteria for choosing materials. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

ENGL 171—INTRODUCTION TO AFRICAN-AMERICAN 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 the contributions of African-Americans in American literature from the slave era to the present. The emphasis will be on a chronological study of major works in the following genres: slave narratives, folk tales, poetry, short story, novel, and drama. Field trips may be required. (A-F or P/NP) Lecture. **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.*Recommended for Success:* Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

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 may be required. (A-F or P/NP) Lecture. **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. **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. **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 may be required. (A-F or P/NP) Lecture. **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.*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 may be required. (A-F or P/NP) Lecture. **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 may be required. (A-F Only) Lecture.

Transfer: (CSU, UC) **General Education:** (MJC-GE: C)(CSU-GE: C2)(IGETC: 3B)

ENGR (Engineering)

Dean: Brian Sanders

Division Office: Science Building, Room 126

Phone: (209) 575-6173

Division website: www.mjc.edu/current/programs/divdepts/sme/**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. **Transfer:** (CSU, UC)

ENSCI (Environmental Sciences)

Dean: Mark Anglin

Division Office: Agriculture Building, Room 100

Phone: (209) 575-6200

Division website: www.mjc.edu/prospective/programs/agens/index.html

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 may be required. (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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: D7) (IGETC: 4G)

ESL (English as a Second Language)

Dean (Interim): Maurice McKinnon

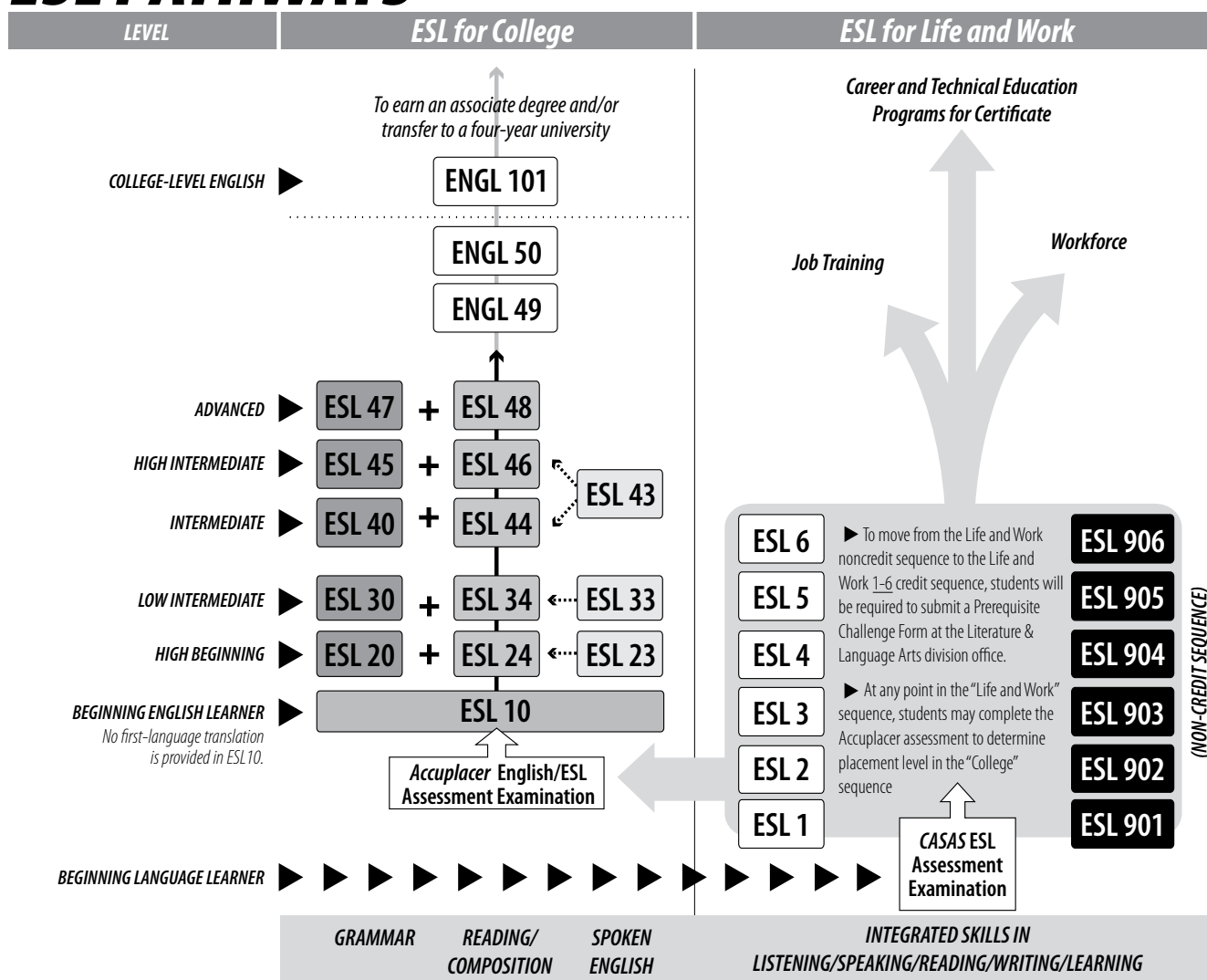
Division Office: Founders Hall, Room 200, Phone: (209) 575-6149,

Division website: www.mjc.edu/current/programs/divdepts/litlang/

Instructors: Ines Bucknam, Gabriele Steiner, Michael Strangio, Ruth Luman, Sara Shore, Michael Akard

The Literature and Language Arts division offers 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 PATHWAYS



COURSES 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 may be required. (A-F Only) Lecture.

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 may be required. (A-F Only) Lecture.

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 may be required. (A-F Only) Lecture.

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 may 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 may be required. (A-F Only) Lecture.

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 may be required. (A-F Only) Lecture.

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 may be required. Lecture. (A-F or P/NP)

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 may be required. (A-F or P/NP) Lecture.

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 may be required. (A-F or P/NP) Lecture.

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 may be required. (A-F or P/NP) Lecture.

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 may be required. (A-F or P/NP).

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.

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 may be required. (A-F or P/NP) Lecture.

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 may be required. (A-F or P/NP) Lecture.

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 may be required. (A-F or P/NP) Lecture.

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 may be required. (A-F or P/NP) Lecture.

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)

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

90 Lecture hours

Prerequisite: Satisfactory completion of with a minimum grade of C or better 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. Field trips may be required. (A-F or P/NP) Lecture.

ESL 47—ENGLISH LANGUAGE 6**5 UNITS**

90 Lecture hours

Prerequisite: Placement in ESL 47 through assessment process or satisfactory completion of ESL 45 or equivalent course.

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. Lecture. (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 may be required. (A-F or P/NP) Lecture.

ESL: NON-CREDIT, NON-DEGREE COURSES**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. Repeatable. Field trips may 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. Repeatable. Field trips may 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. Repeatable. Field trips may 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. Repeatable. Field trips may 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. Repeatable. Field trips may 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. Repeatable. Field trips may be required. (Non-Graded course) Lecture.

FAMLF (Family Life)

Dean: Patrick Bettencourt

Division Office: John Muir Hall, Room 157

Phone: (209) 575-6343

Division website: www.mjc.edu/prospective/programs/fcs/index.html**FAMLF 131—FAMILY RELATIONSHIPS****3 UNITS**

54 Lecture hours

The family and its interpersonal relationships, the formation and development of the family, adjustments within the family, the family cycle, parenthood, marriage enrichment, dissolution of marriage and remarriage, exploration of resources to strengthen the family. Lecture. (A-F or P/NP) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: E)(CSU-GE: D7,E)(IGETC:4G)

FAMLF 355X,A—THE CHILD IN THE FAMILY**½, 1 UNIT**

X=9 Lecture hours, A=18 Lecture hours

Influences of the family and school on the growth and development of the child from the prenatal stage through the early childhood years. Community resources that impact children. May be completed up to four times. Field trips may be required. Lecture. (A-F or P/NP)

COURSES: **FAMLF**

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)

FAMLF: NON-CREDIT COURSES

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)

FDNTR (Food & Nutrition)

Dean: Patrick Bettencourt
Division Office: John Muir Hall, Room 157
Phone: (209) 575-6343
Division website: www.mjc.edu/prospective/programs/fcs/index.html

FDNTR 219—NUTRITION 3 UNITS
54 Lecture hours
Recommended for Success: Satisfactory completion of Laboratory chemistry course in high school or college, or concurrent enrollment.

Concepts of nutrient requirements of the body in relation to growth maintenance, and repair at different stages of a normal life cycle; factors influencing normal metabolism; construction of an adequate diet at different ages and food safety and hunger will be examined. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (CC BIOL 50) **General Education:** (MJC-GE: A)

FREN (French)

Dean (Interim): Maurice McKinnon
Division Office: Founders Hall, Room 200
Phone: (209) 575-6149
Division website: www.mjc.edu/current/programs/divdepts/litlang/
Instructors: Ines Bucknam

FREN 51—INTRODUCTION TO PRACTICAL FRENCH 1 3 UNITS
54 Lecture hours
Basic conversational French for travel, work, or preparation for French 101. Field trips may be required. Lecture. (A-F or P/NP) **General Education:** (MJC-GE: C)

FREN 52—INTRODUCTION TO PRACTICAL FRENCH 2 3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of FREN 51.
Continuation of FREN 51. Review and expansion of essentials of French grammar and vocabulary through oral expression. (A-F or P/NP) Lecture.

FREN 101—FRENCH 1 5 UNITS
90 Lecture hours
Essentials of written and spoken French, simple composition, conversation, and reading. Field trips may be required. (A-F or P/NP) Lecture. **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. Review and expansion of tenses, vocabulary, and commonly used expressions. Equivalent to the satisfactory completion of three years of high school French. Lecture. (A-F or P/NP) **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. **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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A)

FSCI (Fire Science)

Dean: Pedro Mendez
Director: John Sola (209) 575-5701
Division Office: Regional Fire Training Center, 1220 Fire Science Lane
Phone: (209) 575-5701

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 fire fighting, 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 549-5706.

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) **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) **Transfer:** (CC FIRE 2)

FSCI 303—FIRE PROTECTION EQUIPMENT & SYSTEMS 3 UNITS*Formerly listed as: FSCI - 303: Fire Protection Equip & Systems**54 Lecture Hours**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) **Transfer:** (CC FIRE 3)

FSCI 304—BUILDING CONSTRUCTION FOR FIRE PROTECTION 3 UNITS*Formerly listed as: FSCI - 304: Bldg Construction for Fire Protection**54 Lecture Hours**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) **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) **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 may be required. (A-F Only) Lecture

FSCI 309 FIRE MANAGEMENT 2E 2½ 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 may be required. (A-F Only) Lecture

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 may be required. (A-F or P/NP) Lecture.

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 may be required. (A-F Only) Lecture

FSCI 322—FIRE SERVICE 3 UNITS**CAREER DEVELOPMENT/PROMOTIONS***54 Lecture 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 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 may be required. (A-F Only) Lecture/Lab.

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)

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)

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)

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)

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. **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

FSCI 347—FIRE PREVENTION 1C 2½ 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. (A-F Only)

COURSES: **FSCI**

<p>FSCI 350—FIRE COMMAND 1A 2 UNITS <i>45 Lecture hours</i> <i>Prerequisite: Satisfactory completion of FSCI 301 with a minimum grade of C or better.</i> 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</p>	<p>FSCI 355—FIRE PREVENTION 1B 2½ UNITS <i>45 Lecture Hours</i> <i>Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Fire Prevention 1A.</i> 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)</p>
<p>FSCI 351—FIRE COMMAND 1B 2 UNITS <i>34 Lecture hours, 6 Lab hours</i> <i>Prerequisite: Satisfactory completion of FSCI 301 and FSCI 350.</i> 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 may be required. Lecture/Lab. (A-F Only)</p>	<p>FSCI 356—FIRE MANAGEMENT 1 2½ UNITS <i>45 Lecture Hours</i> <i>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.</i> 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)</p>
<p>FSCI 352—TRAINING INSTRUCTOR 1A 2½ UNITS <i>45 Lecture hours</i> <i>Formerly listed as: FSCI - 352: Fire Instructor 1A</i> <i>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.</i> 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. (A-F Only) Lecture</p>	<p>FSCI 357—FIRE INVESTIGATION 1 2½ UNITS <i>45 Lecture Hours</i> <i>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.</i> 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)</p>
<p>FSCI 353 —TRAINING INSTRUCTOR 1B 2½ UNITS <i>45 Lecture hours</i> <i>Formerly listed as: FSCI - 353: Fire Instructor 1B</i> <i>Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Training Instructor 1A.</i> 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</p>	<p>FSCI 362—BASIC FIRE ACADEMY 8 UNITS <i>108 Lecture Hours, 108 Lab Hours</i> <i>Prerequisite: Satisfactory completion of FSCI 301 and FSCI 304 and FSCI 305 and EMS 390.</i> <i>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.</i> 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) (MJC FSCI 362+363=CC FIRE 7, FIRE 50, FIRE 101, FIRE 106, FIRE 108, FIRE 110)</p>
<p>FSCI 354—FIRE PREVENTION 1A 2½ UNITS <i>45 Lecture Hours,</i> <i>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.</i> 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)</p>	<p>FSCI 363—ADVANCED FIRE ACADEMY 9 UNITS <i>81 Lecture Hours, 243 Lab Hours</i> <i>Prerequisite: Satisfactory completion of FSCI 362.</i> 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) MJC FSCI 362+363=CC FIRE 7, FIRE 50, FIRE 101, FIRE 106, FIRE 108, FIRE 110)</p>
<p>FSCI 364—FIRE APPARATUS DRIVER/OPERATOR 1A 2 UNITS <i>27 Lecture Hours, 27 Lab Hours</i> <i>Recommended for Success: Before enrolling in this course, students are strongly advised to Satisfactorily complete FSCI 362.</i> <i>Limitations on Enrollment: Enrollment limited to students who possess a valid California Driver's License, class B, firefighter restricted (minimum).</i> 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) (CC FIRE 29A and 29B)</p>	

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.

FSCI 367—FIRE INVESTIGATION 1B **2½ 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)

FSCI 369—TRAINING INSTRUCTOR 1C **2½ 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)

FSCI 371—FIRE COMMAND 2A **2½ 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)

FSCI 372—FIRE MANAGEMENT 2B **2½ UNITS***Formerly listed as: FSCI - 372B: Fire Management 2B*

45 Lecture Hours

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)

FSCI 373—FIRE INSTRUCTOR 2A **2½ 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)

FSCI 374—FIRE INSTRUCTOR 2B **2½ 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)

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 may be required. (A-F Only)

FSCI 399—INDEPENDENT STUDY/ SPECIAL PROBLEMS **2½ UNITS**

45 Lecture hours

*Formerly listed as: FSCI - 399A: Independent Study/ Special Problems**Recommended for Success: Before enrolling in this course, students are strongly advised to students are strongly advised to have completed their firefighter probation or have supervisor's approval for enrollment if still on probation.*

Short courses on mandated fire agency training needs. Emphasis on new statutory laws, information and technology with direct impact on emergency operations and management. Content varies with specific agency training and certification needs studied. Students may retest if required by regulation. - Field trips might be required. (A-F Only) Lecture

FTECH (Fire Technology)

Dean: Pedro Mendez

Director: John Sola (209) 575-5701

Division Office: Regional Fire Training Center, 1220 Fire Science Lane

Phone: (209) 575-5701

FTECH 301XABC—INCIDENT COMMAND SYSTEMS **½ - 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 may be required. (A-F or P/NP) Lecture.

FTECH 310XABC—RESCUE SYSTEMS AND OPERATIONS **½ - 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

GEOG (Geography)

Dean: Cecelia Hudelson
Division Office: Founders Hall 100
Phone: (209) 575-6129
Division website: mjc.edu/prospective/programs/bbss/
Instructors: Cece Hudelson

GEOG 101—PHYSICAL GEOGRAPHY 3 UNITS

54 Lecture Hours

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

Physical elements of geography; emphasis upon earth-sun relationships, weather, climate, and vegetation patterns, degradation processes, landforms created through glaciation, water, wind and tidal activity, and human impact upon the environment. Field trips might be required. (A-F or P/NP) **Transfer:** (CSU, UC)(CC GEOG 15) **General Education:** (MJC-GE: A) (CSU-GE: B1) (IGETC: 5A)

GEOG 102—CULTURAL GEOGRAPHY 3 UNITS

54 Lecture hours

Recommended for Success: Satisfactory completion of 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. Lecture. **Transfer:** (CSU, UC)(CC GEOGR 12) **General Education:** (MJC-GE: B)(CSU-GE: D5)(IGETC: 4E)

GEOG 104—CALIFORNIA GEOGRAPHY 3 UNITS

54 Lecture hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 with a minimum grade of C or better.

Introduction to California's unique geography; examining political, economic, cultural, physical, and historical processes and characteristics. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B)(CSU-GE: D5)(IGETC: 4E)

GEOG 105—ECONOMIC GEOGRAPHY 3 UNITS

54 Lecture hours

Introduction to economic geography. Examines patterns of global economic activity, resources, market locations, transportation, and corporate behavior. (A-F or P/NP) Lecture. - **Transfer:** CSU, UC **General Education:** (MJC-GE: B)(CSU-GE: D2, D5)(IGETC: 4E)

GEOG 109 —INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS 3 UNITS

36 Lecture hours, 54 Lab hours

Also offered as ENSCI 109 - Introduction to Geographic Information Systems

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. (A-F Only) Lecture/Lab. **Transfer:** (CSU, UC)(CC GEOGR 60)

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. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B)(CSU-GE: D5)(IGETC: 4E)

GEOL (Geology)

Dean: Brian Sanders
Division Office: Science Building, Room 126
Phone: (209) 575-6173
Division website: www.mjc.edu/current/programs/divdeps/sme/
Instructors: Garry Hayes

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. **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 may be required. (A-F or P/NP) Lecture Lab. **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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC)(CC ESC 12) (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) **Transfer:** (CSU, UC) (C-ID GEOL 111) **General Education:** (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

GEOL 171X,A,B—GEOLOGY FIELD STUDIES ½,1,2 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 /Discussion **Transfer:** (CSU, UC) (CC ESC 35)

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 may be required. (A-F or P/NP) / Discussion. **Transfer:** (CSU)

GERM (German)**Dean (Interim):** Maurice McKinnon**Division Office:** Founders Hall, Room 200**Phone:** (209) 575-6149**Division website:** www.mjc.edu/current/programs/divdeps/litlang/**Instructors:** Gabriele Steiner**GERM 51—INTRODUCTORY GERMAN 1****3 UNITS***54 Lecture hours**Formerly listed as Introduction to Practical German 1*

Slow-paced, non-transferable course designed for people who have never studied German and/or another foreign language. Introduction to elementary German grammar and pronunciation. Field trips may be required. (A-F or P/NP) Lecture. **General Education:** (MJC-GE:C)

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) **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) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A)

GERON (Gerontology)**Dean:** Patrick Bettencourt**Division Office:** Glacier Hall, Room 165**Phone:** (209) 575-6864**Instructor:** Kimberly Kennard**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. (A-F or P/NP) **Transfer:** (CSU)

GUIDE (Guidance/Counseling)**Dean :** Lorena Dorn**Division Office:** Student Services Building, Room 226**Phone:** (209) 575-6080**Division website:** www.mjc.edu/prospective/getting_started/advising/index.html**Instructors:** Alida Garcia, Barbara St. Urbain, Dana Hanlon, Dean Tsuruda, Eric Ivory, Eva Rivera-Jara, Hanna Louie, Kim Bailey, Linda Wong, Marcos Garcia, Mary Silva, Pam Crittenden, Pam Loyd, Theresa Maldonado-Ballance, Tina Giron, Leticia Cavazos

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 be eligible for ESL 45 and ESL 46.*

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, vocational and certificate programs, degree and transfer requirements. Reviews extracurricular activities, personal adjustment, American customs, culture shock, survival techniques and immigration regulations. A detailed educational plan is developed. Students must complete a conference with a counselor during the semester. Lecture. MJC Guidance. (P/NP Only) **Transfer:** (CSU)

GUIDE 110—EDUCATIONAL PLANNING**½ UNIT***9 Lecture hours*

Acquaints MJC students with the college, its curriculum, facilities, services, academic regulations, vocational and certificate programs, degree and transfer requirements. Students must complete a conference with a counselor during the semester. An educational plan is developed according to each student's needs and goals. (P/NP Only) Lecture. MJC Guidance. **Transfer:** (CSU)(CC GUIDE 107)

GUIDE 111—CAREER AWARENESS**1 UNIT***18 Lecture hours*

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, aptitude 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 (P/NP Only) Lecture. MJC Guidance. **Transfer:** (CSU)(CC GUIDE 11)

COURSES: **GUIDE - HIST**

GUIDE 112 —JOB HUNTING SKILLS

½ UNIT

9 Lecture hours

Formerly listed as GUIDE 112 - Job Employment Skills

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. Students must complete an appointment with a counselor during the semester. - (P/NP Only) Lecture. MJC Guidance. **Transfer:** (CSU)(CC GUIDE /BUSAD 25)

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. (P/NP Only) Lecture / Discussion. MJC Guidance. **Transfer:** CSU

GUIDE 120—SUCCESS STRATEGIES FOR TRANSFER STUDENTS

3 UNITS

54 Lecture hours

Increase success in college and in life by assisting student in obtaining skills and techniques necessary to reach personal goals. Explore personality, interests and values to increase self-understanding and select an appropriate major and career. Topics include: educational planning and transfer strategies, motivation and learning styles, research strategies, note-taking, subject-specific study techniques, time management, and textbook study methods. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: Guidance)

HE (Health Education)

Dean: William Kaiser, Ed.D.

Division Office: PE Office Building, Room 105

Phone: (209) 575-6269

Division website: www.mjc.edu/athletics

Instructors: Cheryl Mulder, David Shrock, Demetrius Snaer, Eric Fischer, Jim Stevens, Kurt Olson, Mary Shea, Michael Girardi, Milan Motroni, Paul Brogan, Shawn Black, Steve Aristotelous

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 RESPONSE/CPR FPR

3 UNITS

54 Lecture Hours

Course designed to provide advanced first aid 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 Health Care Provider, AED, and First Aid certification issued upon satisfactory completion. Materials fee required. Field trips are not required. (A-F or P/NP) **Transfer:** (CSU, UC) (CC: EMS 13)

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 well-being in achieving human potential. Field trips are not required. (A-F or P/NP) **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

Focus on women's issues in selection of a plan for healthful living. Exploration of the interrelationship of health concerns for African American, Chicana/Latina, American Indian, Asian American, and European American women. Lecture. **Transfer:** (CSU, UC) (CC HHP 2) **General Education:** (MJC-GE: E)(CSU-GE: E)

HE 118—EXERCISE AND NUTRITION FOR HEALTHY LIVING

3 UNITS

54 Lecture hours

Formerly listed as: HE - 118: Exercise and Nutrition for Healthy Living

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. **Transfer:** (CSU) **General Education:** (MJC-GE: E)

HIST (History)

Dean: Cecelia Hudelson

Division Office: Founders Hall 100

Phone: (209) 575-6129

Division website: mjc.edu/prospective/programs/bbss/

Instructors: Eileen Kerr, Curtis Martin, Eva Mo, Bill Newell, Al Smith

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 101.

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. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (CC HIST 16) **General Education:** (MJC-GE: B) (CSU-GE: D6) (IGETC: 4F) (AI: Group a, c)

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 101.*

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. (A-F or P/NP) Lecture **Transfer:** (CSU, UC) (CC HIST 17) **General Education:** (MJC-GE: B) (CSU-GE: D6) (IGETC: 4F) (AI Group A,C)

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 101.*

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. **Transfer:** (CSU, UC) **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 101.*

Survey of the political, economic, social, and cultural changes in the history of Western Civilization from 17th century Absolutism to the present. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **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*

A comparative and interactive investigation and analysis of World Civilization as related to the development of the modern world. Field trips may be required. (A-F or P/NP) Lecture.

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 101.*

A comparative study of World Civilizations from 1500 to the present. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (CC HIST 14) **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 101.*

Explores the political, economic, social and cultural developments of twentieth century United States history. Periods covered include, but are not limited to, imperialism, the progressive impulse, world wars, the depression, cold war, the civil rights movement and diverse trends in modern American society. Field trips are not required. (A-F or P/NP) **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 101.*

The first in a two-part series, HIST 113 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. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F) (AI: Group a)

HIST 115—ECONOMIC HISTORY OF THE UNITED STATES 3 UNITS*54 Lecture hours**Recommended for Success: Satisfactory completion of ENGL 101**Also offered as ECON 115.*

Analysis of origins and development of business, labor and agriculture from the colonial period to the present. Emphasis on the federal government's part in the development and regulation of business, labor and agriculture; the government's role in the national economic process. Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: D2, D6) (IGETC: 4B, 4F) (AI: Group a)

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 101.*

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. **Transfer:** (CSU, UC) (CC HIST 21) **General Education:** (MJC-GE: B) (CSU-GE: D4, D6) (IGETC: 4D, 4F) (AI: Group a)

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. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F) (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 101.*

Survey of Mexican history from the first Mesoamerican civilizations through the present, exploring the intersection of politics, the economy, society, culture, and geography. Periods covered include: Mesoamerica, the colonial period, independence, La Reforma, the Porfiriato, the Mexican Revolution and its aftermath, and the post WWII period. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: D6) (IGETC: 4F)

COURSES: HIST - HUMAN

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. **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 101.

Survey of California history from the first peoples to inhabit this region through the present. The course explores the intersection of politics, the economy, society, culture, and geography and the way it has contributed to the formation of contemporary California. Emphasis comparing and contrasting the historical development of California to that of the rest of the nation. Field trips may be required. (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 101.

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 movements. Field trips may be required. (A-F or P/NP) Lecture. **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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F) (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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F) (AI: Group a)

HUMAN (Humanities)

Dean: Michael Sundquist

Division Office: Performing and Media Arts Center, Room 205

Phone: (209) 575-6081

Division website: www.mjc.edu/arts

Instructors: Chad Redwing, Flora Carter

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) **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) **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) **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) (CC HUMAN 3) **Transfer:** (CSU, UC) **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)

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) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

HUMSR (Human Services)

Dean: Cecelia Hudelson.**Division Office:** Founders Hall 100**Phone:** (209) 575-6129**Instructors:** Kimberly Kennard

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**1½ 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 may be required. Lecture. (P/NP Only)

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

HUMSR 103—INTRODUCTION TO HUMAN SERVICE CAREERS**½ UNIT***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. **Transfer:** CSU.

HUMSR 104—AGING IN AMERICA**3 UNITS***Also offered as: GERON - 101**54 Lecture Hours*

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) **Transfer:** (CSU)

HUMSR 110—INTRODUCTION TO INTERVIEWING, COUNSELING**3 UNITS***54 Lecture hours**Recommended for Success: 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) **Transfer:** CSU

HUMSR 111—COUNSELING IN CHEMICAL DEPENDENCY**3 UNITS***54 Lecture hours**Recommended for Success: 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). **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 may be required. (A-F only) Lecture. **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. **Transfer:** (CSU)(CC SOCIO 28) **General Education:** (MJC-GE: B)

HUMSR 116—DRUGS AND ALCOHOL IN SOCIETY**3 UNITS***54 Lecture hours**Recommended for Success: Satisfactory completion of ENGL 101*

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) **Transfer:** (CSU)(CC PSYCH 35)

COURSES: **HUMSR - IIS**

HUMSR 117—INTERVENTION AND TREATMENT STRATEGIES IN CHEMICAL DEPENDENCY **3 UNITS**

54 Lecture hours

Recommended for Success: Satisfactory completion of ENGL 101

Prerequisite: 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) **Transfer:** CSU

HUMSR 118—PHARMACOLOGY OF ABUSED SUBSTANCES **3 UNITS**

54 Lecture hours

Also listed as PSYCH 118.

Recommended for Success: HUMSR 116 or 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 psychological effects of drugs, major neurotransmitter systems and how they are influenced by drugs. Lecture. **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 may be required. (A-F only) Lecture. **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: 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) **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 may be required. Lecture. (A-F or P/NP) **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 may be required. Lecture. (A-F or P/NP) **Transfer:** (CSU) **General Education:** (MJC-GE:B)

HUMSR 144—HUMAN SERVICES PRACTICUM **1 UNIT**

Formerly listed as: HUMSR - 144: Community Agency Practicum Discussion

18 Discussion Hours

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 CAAE 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)

Transfer: (CSU)

HUMSR 145ABD—COMMUNITY AGENCY PRACTICUM **1,2,4 UNITS**

A=9 Lecture hours, 27 Lab hours; B=18 Lecture hours, 54 Lab hours, D=36 Lecture hours, 108 Lab hours

Formerly listed as Community Agency Fieldwork

Prerequisite: Satisfactory completion of HUMSR 110 or 111.

Concurrent Enrollment: HUMSR 144

Supervised field experience in a variety of community social agencies. Three maximum completions in any combination of HUMSR 145 A, B, and D. Lecture/Lab. (A-F or P/NP).

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. A-F and CR/NC. Approved for online, hybrid, and telecourse instruction. Applicable to the Associate Degree. Transfer to CSU. Field trips might be required. (A-F or P/NP) **Transfer:** (CSU)

IIS

(Individualized Instruction and Services)

Division Office: Special Programs, Morris, 112B

Phone: (209) 575-6702

IIS 13—IMPROVING LEARNING POTENTIAL **2 UNITS**

18 Lecture hours, 54 Lab hours

Non-degree course.

Specialized computer-assisted instruction for students with disabilities to maximize their learning potential and increase academic efficiency. - Lecture/Laboratory. (P/NP Only)

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.

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.

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.

IIS 20—MATH STRATEGIES FOR DISABLED STUDENTS**1 UNIT**

18 Lecture hours

Non-degree course.

Intended for students with disabilities who need additional instruction and compensatory strategies that typically lead to success within the traditional classroom. Specialized instruction will occur in basic skills and in formulating efficient test-taking and study strategies specifically related to math. - Lecture. (A-F or P/NP).

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.

INDIS (Interdisciplinary Studies)

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) **Transfer:** CSU.

ITAL (Italian)

Dean (Interim): Maurice McKinnon

Division Office: Founders Hall, Room 200

Phone: (209) 575-6149

Division website: www.mjc.edu/current/programs/divdepts/litlang/

Instructors: Gabriele Steiner

ITAL 51—INTRODUCTION TO PRACTICAL ITALIAN 1**3 UNITS**

54 Lecture hours

Introduction to the essentials of spoken and written Italian with emphasis on daily life situations, travel, and occupation. (A-F or P/NP) Field trips may be required. Lecture.

ITAL 52—INTRODUCTION TO PRACTICAL ITALIAN 2**3 UNITS**

54 Lecture hours

Recommended for Success: Satisfactory completion of ITAL 51.

Continuation of ITAL 51. Review and expansion of essentials of spoken and written Italian. (A-F or P/NP) Field trips may be required. Lecture.

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) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

LIBR (Library and Information Technology)

Dean (Interim): Maurice McKinnon

Division Office: East Campus, Library 122

Phone: (209) 575-6235

Division website library.mjc.edu

Instructors: Ellen Dambrosio, Iris Carroll, James Clarke, Kathleen Ennis, Sue Adler,

The division of Library & Information Technology 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 **Transfer:** (CSU, UC) **General Education:** (MJC-GE: D2)

MACH (Machine Tool Technology)

Dean: Pedro Mendez

Office: John Muir 258W

Phone: (209) 575-6332

Division website: www.mjc.edu/prospective/programs/teched/electech/

Instructors: Jeff Weaver

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 with a minimum grade of C or better, satisfactorily complete ESL 45 with a minimum grade of C or better and.

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 & 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. This course meets California apprenticeship standards. Materials Fee Required Field trips might be required. (A-F or P/NP) Lecture Lab. **Transfer:** (CSU)

MACH 212DE—MACHINE TOOL TECHNOLOGY 2 4 OR 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 211 or MFGA 301.

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) **Transfer:** (CSU)

MACH 213—MACHINE TOOL TECHNOLOGY 3 4 UNITS

Formerly listed as: MACH - 213D: Machine Tool Technology3 - Manufacturing

36 Lecture Hours, 108 Lab Hours

Prerequisite: Satisfactory completion of MACH 212 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) **Transfer:** (CSU)

MACH 218—INTRODUCTION TO CNC LATHE PROGRAMMING 2 UNITS

18 Lecture hours, 54 Lab hours

Recommended for Success: Previous experience in the use of 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. May be completed up to 2 times. Field trips may be required. Lecture/Lab. (A-F or P/NP). Materials fee required. **Transfer:** CSU.

MACH 219—INTRODUCTION TO CNC MILL PROGRAMMING 2 UNITS

18 Lecture hours, 54 Lab hours

Recommended for Success: Previous experience in the use of manual or CNC lathes and milling machines. The previous courses and/or training must have been completed satisfactorily.

The use of manual programming techniques to develop tool path codes required to produce products using CNC milling and turning equipment. Effective cutting speeds, feeds, and depth of cut for various machining operations using "canned cycles" and word address programming format will be addressed. May be completed up to 2 times. Materials fee required. Lecture/Lab. (A-F or P/NP). **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. **Transfer:** CSU

MACH 222—CNC MACHINE OPERATIONS 2 UNITS

9 Lecture hours, 81 Lab hours

Recommended for Success: Concurrent enrollment in MACH 219, 220, or 221 and previous machining experience.

The setup and operation of computer-controlled machine tools with emphasis on 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. Field trips may be required. - Lecture/Laboratory/Other. Materials fee required.

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 may be required. Lecture/Lab. (A-F or P/NP). Materials fee required. **Transfer:** CSU

MACH 301—MACHINE SHOP 1 3 UNITS

36 Lecture hours, 54 Lab hours

Study and application of basic measuring tools. (steel rulers, vernier calipers and micrometers), layout tools and hand tools. Theory and practice in the use of drilling machines, bandsaws, lathes and vertical milling machines. Meets California apprenticeship standards. - Field trips may be required. Lecture/Laboratory. (A-F or P/NP) Materials fee required.

MACH 302—MACHINE SHOP 2 3 UNITS

Formerly listed as: MFGA - 302: Machine Shop 2

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of MACH 211 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)

MACH 303—MACHINE SHOP 3 3 UNITS

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of MACH 212 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)

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 may be required. (P/ NP Only) Lecture Lab.

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 may be required. (P/ NP Only) Lecture Lab.

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 may be required. - Lecture.

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)

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)

MACH 395A,B,C—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.

MATH

Dean: Brian Sanders

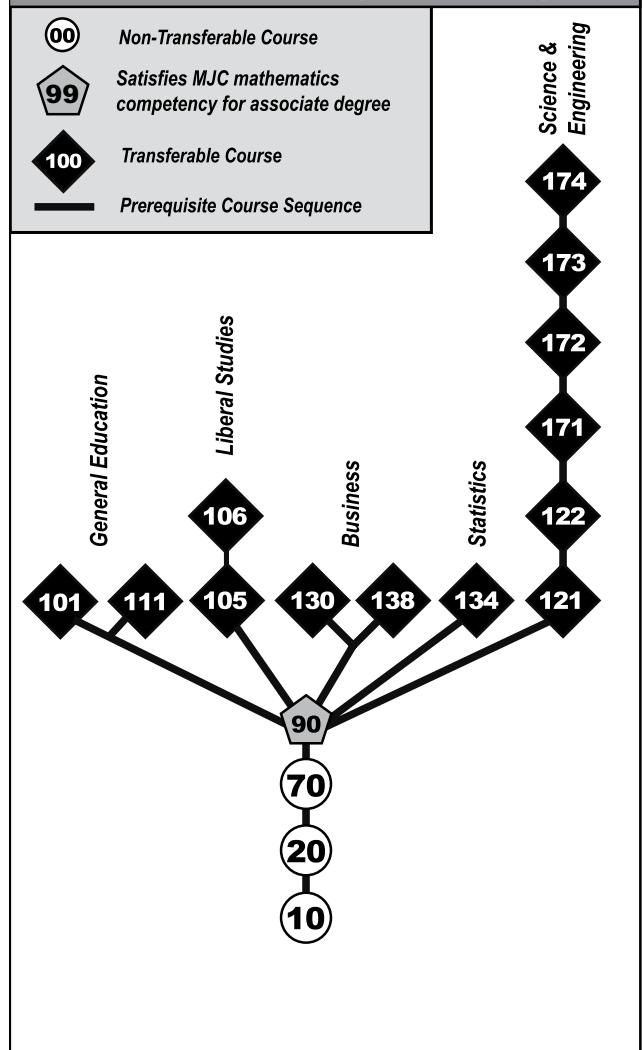
Division Office: Science Building, Room 126

Phone: (209) 575-6173

Division website: www.mjc.edu/current/programs/divdepts/sme/

Instructors: Michael Adams Daniel Alcantra, David Boley, Kimberly Christensen, Paul Cripe, Sarah Curl, Hardev Dhillon, James Dorn, Jacqueline Faris, Elzbieta Jarrett, James Johnson, Ross McKenzie, Heidi Meyer, Jaymes Michelena, Kamran Payvar, Angela Pignotti, Xiang-Dong Ye

Mathematics Course Sequence and Options



COURSES OFFERED

NON-TRANSFERABLE MATH 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) **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) (CC MATH 602)

MATH 47—SKILLS FOR SUCCESS IN NON-TRANSFER LEVEL COURSES ½ UNIT

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. (P/NP Only) Lab.

MATH 49—SKILLS FOR SUCCESS IN TRANSFER LEVEL MATH COURSES ½ UNIT

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.

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)(CC MATH 101) Lecture.

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 (CC MATH 104) **General Education:** (MJC-GE: D2)

GENERAL EDUCATION/TRANSFER & LIBERAL STUDIES**MATH 101—MATHEMATICAL IDEAS AND APPLICATIONS 3 UNITS**

54 Lecture hours

Prerequisite: Satisfactory completion of 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. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC)(CC MATH 6) **General Education:** (MJC-GE: D2)(CSU-GE: B4)(IGETC: 2A)

MATH 105—STRUCTURE OF MATHEMATICS 1 4 UNITS

72 Lecture hours

Prerequisite: Satisfactory completion of MATH 90 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. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC)(CC MATH 4A) **General Education:** (MJC-GE: D2)(CSU-GE: B4)

MATH 106—STRUCTURE OF MATHEMATICS 2 4 UNITS

72 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. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (CC MATH 4B) **General Education:** (MJC-GE: D2)(CSU-GE: B4)

MATH 111—APPLIED COLLEGE ALGEBRA 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of 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) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2)

PRE-CALCULUS**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) **Transfer:** (CSU, UC) (CC MATH 17A) **General Education:** (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2)

MATH 122—PRE-CALCULUS 2**5 UNITS**

90 Lecture hours

*Prerequisite: Satisfactory completion of MATH 121.**Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 80.*

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. **Transfer:** (CSU, UC)(CC MATH 17B) **General Education:** (MJC-GE: D2)(CSU-GE: B4)(IGETC: 2A)

STATISTICS AND APPLICATIONS**MATH 130—FINITE MATHEMATICS****3 UNITS**

54 Lecture hours

Prerequisite: Satisfactory completion of 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. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC)(CC MATH 12) **General Education:** (MJC-GE: D2)(CSU-GE: B4)(IGETC: 2A)

MATH 134—ELEMENTARY STATISTICS**5 UNITS**

90 Lecture Hours

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

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. (A-F or P/NP) **Transfer:** (CSU, UC) (CC MATH 2) (CID SOC 125) **General Education:** (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2)

MATH 138—CALCULUS FOR BUSINESS AND SOCIAL SCIENCES**3 UNITS**

54 Lecture hours

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

Concepts of function and limit; applied calculus emphasizing techniques of differentiation and integration for business economics applications; partial derivatives. Lecture. (A-F or P/NP)

Transfer: (CSU, UC) **General Education:** (MJC-GE: D2)(CSU-GE: B4)(IGETC: 2A)**CALCULUS****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) **Transfer:** (CSU, UC) (CC MATH 18A) **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) (CC MATH 18B) **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) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2A)

MATH 174—INTRODUCTION TO LINEAR ALGEBRA AND DIFFERENTIAL EQUATIONS**5 UNITS**

90 Lecture hours

Prerequisite: Satisfactory completion of MATH 173.

Linear algebra topics including linear equations, vector spaces, scalar products, linear transformations, determinants and eigenvalues. Differential equation topics including solutions to first order equations, higher order linear equations, series solutions, systems of equations, and Laplace transforms. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:D2) (CSU-GE:B4)(IGETC:2A)

MDAST (Medical Assisting)

Dean: Patrick Bettencourt

Division Office: Glacier Hall, Room 165

Phone: (209) 575-63732

Division website: www.mjc.edu/alliedhealth

Instructors: Shirley Buzbee

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**3½ 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.

COURSES: **MDAST - MICRO**

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.

METEO (Meteorology)

Dean: Brian Sanders

Division Office: Science Building, Room 126

Phone: (209) 575-6173

Division website: www.mjc.edu/current/programs/divdepts/sme/

Instructor: Noah Hughes

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)

MICRO (Microbiology)

Dean: Brian Sanders

Division Office: Science Building, Room 126

Phone: (209) 575-6173

Division website: www.mjc.edu/current/programs/divdepts/sme/

Instructor: Erynn Lucas

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)

MUSIC

Dean: Michael Sundquist

Division Office: Performing and Media Arts Center, Room 205

Phone: (209) 575-6081

Division website: www.mjc.edu/arts

Instructors: Alejandro Sabre, Anne Martin, Cherrie Llewellyn, David Chapman, Erik Maki, Stephen Stroud

MUSA (Music: Applied)

See "Repeat Limitations on Music Courses." Students must meet performance and repertoire standards before proceeding to successive levels in the following classes.

MUSA 121—ELEMENTARY PIANO 1 UNIT

Formerly listed as: *MUSIC - 120: Elementary Piano*
54 Lab Hours

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) **Transfer:** (CSU, UC) (CC MUSIC 31A) **Graduation:** (MJC Activities)

MUSA 122—PIANO ENRICHMENT 1 UNIT

Formerly listed as: *MUSIC - 121: Piano Enrichment*
54 Lab Hours

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) **Transfer:** (CSU, UC) **Graduation:** (MJC 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 may be required. (A-F or P/NP) Lab. (MJC Activities) **Transfer:** (CSU, UC) (CC MUSIC 41A & 41B)

MUSA 124—APPLIED PIANO 1 UNIT

Formerly listed as: *MUSA - 124: Advanced Piano, MUSIC - 123: Advanced Piano*
54 Lab Hours

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) **Transfer:** (CSU, UC) **Graduation:** (MJC: 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. (MJC Activities) **Transfer:** (CSU, UC)

MUSA 141—ELEMENTARY GUITAR 1 UNIT

Formerly listed as: *MUSIC - 163: Elementary Guitar*
54 Lab Hours

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. (A-F or P/NP) **Transfer:** (CSU, UC) (CC MUSIC 49) **Graduation:** (MJC Activities)

MUSA 142—GUITAR PERFORMANCE 1 UNIT

Formerly listed as: *MUSA - 142: Guitar Enrichment, MUSIC - 164: Guitar Enrichment*
18 Lecture Hours

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) **Transfer:** (CSU, UC) **Graduation:** (MJC Activities)

MUSA 143—GUITAR ENRICHMENT 1 UNIT

Formerly listed as: *MUSA - 143: Guitar Advancement, MUSIC - 174: Guitar Advancement*
54 Lab Hours

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) **Transfer:** (CSU, UC) **Graduation:** (MJC Activities)

COURSES: **MUSA**

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. Four completions allowed. Field trips may be required. (A-F or P/NP) Lab. (MJC Activities). **Transfer:** (CSU, UC)

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 may be required. (A-F or P/NP) Lecture. (MJC Activities) **Transfer:** (CSU, UC) (CC MUSIC 50)

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 may be required. (A-F or P/NP) Lecture. (MJC Activities) **Transfer:** (CSU, UC) (CC MUSIC 36)

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 may be required. - Lecture/Laboratory. (MJC Activities). **Transfer:** (CSU, UC) (CC MUSIC 37)

MUSA 153 —APPLIED VOCAL REPERTOIRE 1 **1 UNIT**

54 Lab hours

Formerly listed as MUSIC 133 - Intermediate Voice

Concurrent Enrollment required in MUSA 155

Recommended for Success: Before enrolling in this course, students are strongly advised to have a choral background or previous voice lessons.

Limitation on enrollment: Enrollment limited to students possessing the ability to read music and sing within the tonal center.

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. (MJC Activities). **Transfer:** (CSU, UC) (CC MUSIC 39)

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 with an intermediate level ability to sight read music and sing within the tonal center.

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 may be required. (A-F or P/NP) Lecture. (MJC Activities) Two completions allowed. **Transfer:** (CSU, UC) (CC MUSIC 56)

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 may be required. (A-F or P/NP) Lab. (MJC Activities) **Transfer:** CSU

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 may be required. (A-F or P/NP) Lab. **Transfer:** (CSU, UC) **Graduation:** (MJC 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) **Transfer:** (CSU) **Graduation:** (MJC: Activities)

MUSA 163 —APPLIED MUSIC (VIOLIN AND VIOLA) **1 UNIT**

18 Lecture hours

Formerly listed as: MUSIC - 128: Applied Music (Violin and Viola)

Recommended for Success: Before enrolling in this course, students are strongly advised to be able to play a violin or viola at an intermediate level and demonstrate the ability to read music.

Study and performance of violin or viola technique and literature. Public performance participation required. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **Graduation:** (MJC Activities).

MUSA 164 —Applied Music (Cello and Bass) 1 Unit

18 Lecture hours

Formerly listed as: MUSIC - 129: Applied Music (Cello and Bass)

Recommended for Success: Before enrolling in this course, students are strongly advised to play a cello or bass at an intermediate or advanced level and demonstrate the ability to read music.

Study and performance of cello or bass technique and literature. Recital and public performance participation required. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **Graduation:** (MJC 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 may be required. (A-F or P/NP) Lecture. (MJC Activities) **Transfer:** (CSU, UC)

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 may be required. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture. (MJC Activities) **Transfer:** (CSU, UC) (CC MUSIC 52)

MUSC (Music: Commercial)

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**Also offered as RATV 172**Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSC 121 and MUSC 122*

Introduction to the terminology and practices of the recording arts. Properties of sound, microphone placement, multi-track recording, mixing and mastering. Lab time and materials fees will be required. - Field trips may be required. (A-F or P/NP) (MJC Activities). **Transfer:** (CSU)

MUSC 112—RECORDING ARTS 2 2 UNITS

18 Lecture hours, 54 Lab hours

*Formerly listed as MUSIC 178**Also offered as RATV 178**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. Laboratory time required. Materials fee required. - (MJC Activities) **Transfer:** (CSU).

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. (MJC Activities) **Transfer:** (CSU)

MUSC 122—ELECTRONIC MUSIC 2 2 UNITS

27 Lecture hours, 27 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. - (A-F or P/NP) Lecture Lab. **Transfer:** (CSU) **Graduation:** (MJC Activities).

MUSC 126—MUSIC PRODUCTION FOR MULTIMEDIA 2 UNITS

18 Lecture hours, 54 Lab hours

*Formerly listed as MUSIC 168**Also offered as RATV 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. - Lecture Lab. (MJC Activities). (A-F or P/NP) **Transfer:** (CSU)

MUSE (Music: Ensemble)

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. (MJC Activities). **Transfer:** (CSU, UC)

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. (MJC Activities). **Transfer:** (CSU,UC) (CC MUSIC 66)

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. Public performances of multi-cultural programs from a variety of historical periods. Four completions allowed. Field trips are required. (A-F or P/NP) Lab. **Transfer:** (CSU, UC) **Graduation:** (MJC Activities).

MUSE 156—Chamber Choir 1 Unit

COURSES: **MUSE - MUSG**

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) **Graduation:** (MJC 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 may be required. (A-F or P/NP) Lab. (MJC Activities). **Transfer:** (CSU, UC) (CC MUSIC 76)

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 string 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 may be required. (A-F or P/NP) Lecture/Lab. (MJC Activities). **Transfer:** (CSU, UC)

MUSE 166—CHAMBER MUSIC ENSEMBLES (STRINGS)

1 UNIT

18 Lecture hours

Formerly listed as *MUSIC 151*

Recommended for Success: Before enrolling in this course, students are strongly advised to demonstrate ability to read music and play an instrument at an advanced level.

Rehearsal and performance of chamber ensemble literature. Ensembles may include strings, woodwinds, or piano. Public performance required. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture. (MJC Activities). **Transfer:** (CSU, UC) (CC MUSIC 78)

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 may be required. (A-F or P/NP) Lab. (MJC Activities) **Transfer:** (CSU, UC)

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 may be required. Student must own or have access to an appropriate instrument. Field trips may be required. (A-F or P/NP) Lab. (MJC Activities)

Transfer: (CSU, UC)

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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (CC MUSIC 78) **Graduation:** (MJC 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 may be required. (A-F or P/NP) Lab. (MJC Activities). **Transfer:** (CSU, UC)

MUSE: NON-CREDIT COURSES

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. Repeatable. Lecture/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 may be required. Laboratory/Rehearsal. 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 may be required. Laboratory/Rehearsal. Not a graded course.

MUSG (Music: General)

MUSG 101—MUSIC APPRECIATION

3 UNITS

Formerly listed as: *MUSIC - 110: Music Appreciation*

54 Lecture Hours

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) **Transfer:** (CSU, UC) (CID MUS 100)

General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUSG 102—INTRODUCTION TO WORLD MUSIC 3 UNITS

Formerly listed as: *MUSIC - 169: Introduction to World Music*
54 Lecture Hours

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) 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 may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE:C) (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. Transfer: (CSU, UC)

MUSG 121—HISTORY OF WESTERN MUSIC 1 3 UNIT

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 may be required. Lecture/Laboratory. (A-F or P/NP) 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 may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) (CC MUSIC 11) General Education: (MJC-GE:C) (CSU-GE:C1) (IGETC:3A)

MUSI

(Music: Independent Activities)

MUSI 349 A-D—WORK EXPERIENCE IN THE ARTS – SUPERVISED PRACTICE 1 UNIT

Formerly listed as *MUSIC 349A*

Designed for those majors who wish to combine classroom experience with an expansion of skills or knowledge acquired at a site of employment on a paid or volunteer basis. Work must directly relate to the student's area of study. May be repeated for a total of 16 units. Also offered during May, June, and July. Lecture/Other. (A-F Only)

MUSP

(Music: Stage Production)

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 may be required. (A-F or P/NP) Lecture/Lab. (MJC Activities). Transfer: (CSU, UC)

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. Two completions allowed. Field trips may be required. (A-F or P/NP) Lab. (MJC Activities). Transfer: (CSU, UC)

MUST

(Music: Theory)

MUST 101—MUSIC FUNDAMENTALS 1 3 UNITS

Formerly listed as: *MUSIC - 100: Music Fundamentals 1*
54 Lecture Hours

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) Transfer: (CSU, UC)(CID MUS 110) General Education: (MJC-GE: C)

MUST 121—MUSIC THEORY 1 3 UNITS

Formerly listed as: *MUSIC - 102: Music Theory 1*
54 Lecture Hours

Prerequisite: Satisfactory completion of MUST 101.

Corequisite: Concurrent enrollment in MUST 131 and MUST 130.

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) Transfer: (CSU, UC) (CC MUSIC 20A) (CID MUS 120) General Education: (MJC-GE: C)(CSU-GE: C1) (IGETC: 3A)

MUST 122—MUSIC THEORY 2 3 UNITS

Formerly listed as: *MUSIC - 103: Music Theory 2*
54 Lecture Hours

Prerequisite: Satisfactory completion of MUST 121.

Corequisite: Concurrent enrollment in MUST 132 and MUST 130.

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) Transfer: (CSU, UC)(CC MUSIC 20B) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

COURSES: **MUST**

MUST 123—MUSIC THEORY 3

3 UNITS

Formerly listed as: MUSIC - 106: Music Theory 3

54 Lecture Hours

Prerequisite: Satisfactory completion of MUST 122.

Corequisite: Concurrent enrollment in MUST 130.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 133 concurrent enrollment.

Continuation of the study of structural elements of music such as melody, rhythm, harmony and form with emphasis on the organization of these elements; study of chromatic alteration, expansion of harmonic resources through chromaticism; study of binary and sonata form.

Field trips are not required. (A-F or P/NP) **Transfer:** (CSU, UC) (CC MUSIC 21A) **General**

Education: (MJC-GE:C) (CSU-GE: C1) (IGETC:3A)

MUST 124—MUSIC THEORY 4

3 UNITS

Formerly listed as: MUSIC - 107: Music Theory 4

54 Lecture Hours

Prerequisite: Satisfactory completion of MUST 123.

Corequisite: Concurrent enrollment in MUST 130.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 134 concurrent enrollment.

Continued development of analytical techniques; study of fugue and basic tonal counterpoint; introduction to Impressionism and to twentieth century structural techniques; study of ternary structures and rondo form. Field trips are not required. (A-F or P/NP) **Transfer:** (CSU, UC) (CC

MUSIC 21B) **General Education:** (MJC-GE:C) (CSU-GE:C1) (IGETC:3A)

MUST 130—PRACTICA MUSICA

1 UNIT

Formerly listed as: MUSIC - 197: Practica Musica

54 Lab Hours

Corequisite: Concurrent enrollment in MUST 121 or MUST 122 or MUST 123 or MUST 124.

Development of aural and rhythmic skills by means of computer assisted participation.

Exposure to standard western art music repertoire by means of guided listening. Field trips are not required. (A-F or P/NP) **Transfer:** (CSU) **Graduation:** (MJC Activities)

MUST 131—AURAL SKILLS 1

1 UNIT

Formerly listed as: MUSIC - 104: Aural Skills 1

54 Lab Hours

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)

Transfer: (CSU, UC) (CC: MUSIC 4A) (CID MUS 125)

MUST 132—AURAL SKILLS 2

1 UNIT

Formerly listed as: MUSIC - 105: Aural Skills 2

54 Lab Hours

Prerequisite: Satisfactory completion of MUST 131.

Corequisite: Concurrent enrollment in MUST 122.

Continuation of MUSIC 104 further developing skills in sight-singing, melodic and rhythmic dictation and in aural analysis of harmonic materials. Use of computer assisted instruction.

Field trips are not required. (A-F or P/NP) **Transfer:** (CSU, UC) (CC MUSIC 4B) **Graduation:** (MJC Activities)

MUST 133—AURAL SKILLS 3

1 UNIT

Formerly listed as: MUSIC - 108: Aural Skills 3

54 Lab Hours

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) **Transfer:** (CSU, UC) (CC MUSIC 5A)

MUST 134—AURAL SKILLS 4

1 UNIT

Formerly listed as: MUSIC - 109: Aural Skills 4

54 Lab Hours

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) **Transfer:** (CSU, UC) (CC MUSIC 5B) **Graduation:** (MJC: Activities)

NR (Natural Resources)

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Division website: www.mjc.edu/prospective/programs/agens/index.html

Instructors: Mike Morales, Dale Pollard

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 4 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. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: A)(CSU-GE: B1, B3) (IGETC: 5A, 5C)

NR 215—WILDLIFE PRODUCTION 3 UNITS

36 Lecture hours, 54 Lab hours

Wildlife production and management and its relationship to humans; managing game for sustained yields. Production principles for common game species found in this area; habitat improvement; species compatibility and interrelationships; wildlife and fish identification. Field trips required. Lecture/Laboratory. (A-F Only) **Transfer:** (CSU) (CC NARTC 181) **General Education:** (MJC-GE:A)

NR 220—INTRODUCTORY FORESTRY 3 UNITS

36 Lecture hours, 54 Lab hours

Introduction to the integrated management of trees, soils, water, fish and wildlife for the production of wood and fiber products. Emphasis will be on both the traditional and emerging uses of the forest resources to satisfy human needs and the protection of the public trust. Field trips required. Lecture/Lab. (A-F Only) **Transfer:** (CSU, UC)(CC FORES 1) **General Education:** (MJC-GE:A)

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) **Transfer:** (CSU)

NR 224—INTRODUCTION TO FOREST MEASUREMENT 3 UNITS

36 Lecture hours, 54 Lab hours

Recommended for Success: Satisfactory completion of EHS 201 or 202 or NR 220 or 222 or 376, or equivalent.

Introduction to principles and practices of interpreting aerial photographs. Emphasis on vegetation typing, mapping, road reconnaissance and inventory techniques. Use of aerial photographs to obtain location, area, vegetation types, timber volume. Explanation of Geographic Information Systems and its application to forestry and natural resources. Field trips required. Lecture/Laboratory. (A-F Only) **Transfer:** (CSU)(CC NARTC 160)

NR 230—OUTDOOR/FOREST RECREATION 3 UNITS

36 Lecture hours, 54 Lab hours

A study of historic, social, political, economic, and environmental factors influencing outdoor recreation at federal, state, and local levels. Survey of conflicts in natural resources land use and solutions to these conflicts. Maintenance and operation of recreational facilities. Field trips may be required. Lecture/Lab. (A-F Only) **Transfer:** CSU

NR 376—FORESTRY TECHNOLOGY 3 UNITS

36 Lecture hours, 54 Lab hours

Recommended for success: Satisfactory completion of NR 220 or NR 222 or NR 224.

Additional training in silviculture, cruising, forest management, harvesting, and regulations as determined by the California Forest Practice Act. Field trips required. Lecture/Laboratory. (A-F Only) **Transfer:** (CC FORES 10/FORTEC 162)

NR 379—WILDLAND FIRE CONTROL 1 UNIT

9 Lecture hours, 27 Lab hours

Introduction to fundamentals of wildland fire behavior, basic fire fighting strategy, methods of attack to suppress wildland fires. Course is taught in conjunction with U.S. Forest Service. Field trips required. Lecture/Laboratory. (A-F Only) **Transfer:** (CC NATRE 22)

NURSE

(Nurse Assistant and Associate Degree Nursing)

Dean: Patrick Bettencourt

Division Office: Glacier Hall, Room 165

Phone: (209) 575-6373

Division website: www.mjc.edu/alliedhealth

Instructors: Tania Adkins, Beth Bailey, Leanne Bartels, Sandra Brunn, Kelly Butler, Gloria Coats, Laura DeFreitas, Libbie Lanigan, Leta Love, Jill Ramsey, Danise Rapetti, Catherine Rasmussen, Lisa Riggs, Cynthia Schmidt, Glad Schmitt, Teryl Ward, Nancy Wonder

NURSE 40—NURSE ASSISTANT 5 UNITS

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 who have had a physical examination within the last three months and can provide confirmation of a PPD and pass a criminal background screening through the Livescan fingerprint process.

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 fifteen units 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, enrollment fees, books, and application fees for the state certification examination. Student may repeat if required by regulation. Field trips are not required. (A-F Only)

NURSE 115—INTRODUCTION FOR NURSING MAJORS ½ UNIT

9 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 view 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. The role of aptitudes, interests, values and skills will be addressed. Important aspects of nursing as an occupational choice will be covered along with information regarding the nursing profession. (P/NP Only) Lecture. **Transfer:** CSU

COURSES: **NURSE**

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: Limited to Licensed Vocational Nurses with an active license with IV certification. Board of Registered Nursing (BRN) requires Associate Nursing Degree programs to provide a pathway for LVNs to enter an ADN program. This course fulfills one of the BRN's requirements.

Prerequisite: Satisfactory completion of ANAT 125, MICRO 101, PHYSO 101 and ENGL 101 and a score of 67 or greater on the Test of Essential Academic Skills (TEAS). Course prerequisites and TEAS score are the same requirements for qualification for entry into the generic ADN program.

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 (A-F Only) Lecture/Lab.

Transfer: CSU

NURSE 260—NURSING PROCESS: PHARMACOLOGY 2 UNITS

36 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Associate 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) **Transfer:** (CSU)

NURSE 261—NURSING PROCESS: FUNDAMENTALS 8 UNITS

72 Lecture Hours, 216 Lab Hours

Corequisite: Concurrent enrollment in NURSK 800.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete NURSE 115.

Limitations on Enrollment: Enrollment limited to students who have been accepted into the Associate 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. Additional theoretical principles taught in the course include therapeutic communication, patient teaching, professional ethics, and legal aspects of nursing. Materials fee required. Field trips might be required. (A-F Only) **Transfer:** (CSU)

NURSE 262—NURSING PROCESS: SKILLS ½ UNIT

27 Lab hours

Prerequisite: Satisfactory completion of NURSE 260 and NURSE 261.

Corequisite: Concurrent enrollment in NURSK 800.

Limitations on Enrollment: Enrollment based on program capacity.

This course prepares the nursing student to perform nursing skills necessary for satisfactory participation in the obstetrics and pediatric clinical setting. Skills included in this course are: intravenous therapy, gavage feeding, infant bathing, delivery table set-up, and correct administration of medications. Materials Fee Required (P/NP Only) Lab. **Transfer:** CSU

NURSE 263—NURSING PROCESS: MATERNITY 4 UNITS

45 Lecture hours, 81 Lab hours

Prerequisite: Satisfactory completion of NURSE 262.

Corequisite: Concurrent enrollment in NURSK 800.

Limitations on Enrollment: Program requires it by using a non-evaluative process to limit enrollment from among a pool of qualified students.

Applies the basic principles and concepts of the nursing process to meet the needs of the childbearing woman, the childbearing family and the patient with alterations of the reproductive system. Health maintenance, prevention of illness, and patient/family teaching in the hospital and community setting will be emphasized. Includes socio-cultural-spiritual aspects of the family. (A-F Only) Lecture/Lab. **Transfer:** (CSU)

NURSE 264—NURSING PROCESS: PEDIATRICS 4½ UNITS

45 Lecture hours, 108 Lab hours

Prerequisite: Satisfactory completion of NURSE 261 and NURSE 262.

Corequisite: Concurrent enrollment required in NURSK 800.

Limitations on Enrollment: Enrollment limited to students admitted to the Nursing Program.

Applies the principles and concepts of the nursing process to meeting the adaptation needs of the pediatric patient and patient with alterations of the reproductive system. Family-centered care in the hospital and outpatient settings will be emphasized. Throughout the course health maintenance and prevention of illness is emphasized in patient/family teaching. (A-F Only) Lecture/Lab. **Transfer:** CSU

NURSE 265—NURSING PROCESS: MEDICAL-SURGICAL 6 UNITS

54 Lecture Hours, 162 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.

Applies the principles and concepts of the nursing process that focuses on promoting adaptation of adolescent through senescent clients with serious or complex alterations in health. Students will complete didactic units in oxygenation, cardiovascular, hematological, immunological, and oncologic nursing. Acute hospital settings and hospice services will be utilized for the clinical practicum of the course. Materials fee required. Field trips might be required. (A-F Only) **Transfer:** (CSU)

NURSE 266—NURSING PROCESS: MENTAL HEALTH 4 UNITS

54 Lecture Hours, 54 Lab Hours

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 communication/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) **Transfer:** (CSU)

NURSE 267—NURSING PROCESS: ADVANCED MEDICAL-SURGICAL 11 UNITS

81 Lecture hours, 351 Lab hours

Prerequisite: Satisfactory completion of NURSE 265 and NURSE 266.

Corequisite: Concurrent enrollment in NURSK 800.

Includes advances in medical/surgical concepts and principles in the nursing process. Promotes role transition from student nurse to professional nursing through a clinical preceptorship. The student is responsible for all the clinical skills learned in previous semesters, acquires new skills and takes a clinical competency test in the acute care setting. The 5 1/2 week, 180-hour preceptorship is the capstone of the nursing program, encompassing all the clinical, technical and critical thinking skills learned in the program, and emphasizing leadership in management of patient care. In preceptorship, the student works directly with a registered nursing preceptor in the acute care facility. Materials Fee Required (A-F Only) Lecture/Lab. **Transfer:** CSU

NURSK (Nursing: Skills)

Dean: Patrick Bettencourt
 Division Office: Glacier Hall, Room 165
 Phone: (209) 575-6362
 Division website: www.mjc.edu/alliedhealth

NON-CREDIT COURSES

NURSK 800—NURSING SKILLS DEVELOPMENT

30 Lab hours
 Corequisite: Concurrent enrollment in NURSE 259 or NURSE 261 or NURSE 262 or NURSE 263 or NURSE 264 or NURSE 265 or NURSE 266 or NURSE 267 or NURSE 40 or NURSE 350 or NURSE 351 or NURSE 352.

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

OFADM (Office Administration)

Dean: Cecelia Hudelson
 Division Office: Founders Hall 100
 Phone: (209) 575-6129
 Division website: mjc.edu/prospective/programs/bbss/
 Instructors: Kevin Alavezos, Nancy Backlund

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 **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. **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, notepads, cover pages, announcements, flyers, and newsletters. (A-F Only) Lecture. **Transfer:** (CSU)

OFADM 231—INTERMEDIATE WORD PROCESSING 3 UNITS

36 Lecture hours, 54 Lab hours
 Also offered as: 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. **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 CMPSC 231 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. **Transfer:** (CSU)

OFADM 301—BEGINNING KEYBOARDING 1½ 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. **Transfer:** (MJC OFADM 301+OFADM 302=CC OFTEC 120)

OFADM 302—BEGINNING DOCUMENT PROCESSING 1½ 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. **Transfer:** (MJC OFADM 301+OFADM 302=CC OFTEC 120)

OFADM 303—KEYBOARDING FOR SPEED AND ACCURACY ½ UNIT

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.

COURSES: **OFADM**

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

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 may be required. (A-F or P/NP) Lecture Lab.

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)

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 may be required. (A-F or P/NP) Lecture.

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 362 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 may be required. (A-F or P/NP) Lecture. **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.

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

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.

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.

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.

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.

OFADM 356—INTRODUCTION TO WORD PROCESSING 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 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. (A-F Only) Lecture Lab.

OFADM 359—INTRODUCTION TO SPREADSHEET SOFTWARE 1 UNIT

9 Lecture hours, 27 Lab hours

Recommended for Success: Before enrolling in this course, students are strongly advised to have satisfactorily completed OFADM 353.

Beginning course in the use of spreadsheet software. Features of software will be explained and demonstrated in a hands-on learning environment. (A-F Only) Lecture/Lab.

OFADM 361—INTRODUCTION TO DATABASES 1 UNIT

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 356 and satisfactorily complete OFADM 359 and/or satisfactorily complete OFADM 362.

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. (A-F Only) Lecture Lab.

OFADM 362—INTRODUCTION TO BUSINESS PRESENTATION SOFTWARE 1 UNIT*9 Lecture hours, 27 Lab hours**Formerly listed as: OFADM - 362: Intro to Business Presentation Software**Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 353.*

A beginning course using computer software to design slides, outlines, note pages, and audience handouts for business presentations. - (A-F Only) Lecture Lab.

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.

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

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.

OFADM 375—10-KEY ON THE COMPUTER 1 UNIT*18 Lecture hours**Formerly listed as: OFADM - 375: 10-KEY on the Computer*

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

PE (Physical Education)

Dean: William Kaiser, Ed.D.

Division Office: PE Office Building, Room 105

Phone: (209) 575-6269

Division website: www.mjc.edu/athletics

Instructors: Bobby Boswell, Demetrius Snaer, Eric Fischer, Jim Stevens, Kurt Olson, Mary Shea, Michael Girardi, Milan Motroni, Paul Aiello, Paul Brogan, Sam Young, Shawn Black, Steve Aristotelous

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. **Transfer:** (CSU, UC)

COURSES: PE

<p>PE 101—BASKETBALL THEORY 1 UNIT <i>9 Lecture hours, 27 Lab hours</i> Basketball rules, mastery of position and team play. Development of strategies and philosophy. (A-F Only) Lecture/Lab. Transfer: (CSU, UC)</p>	<p>PE 113—OFFENSIVE/DEFENSIVE SOFTBALL THEORY 2 UNITS <i>18 Lecture hours, 54 Lab hours</i> 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. Transfer: (CSU, UC)</p>
<p>PE 102—OFFENSIVE FOOTBALL THEORY 2 UNITS <i>18 Lecture hours, 54 Lab hours</i> 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. Transfer: (CSU, UC)</p>	<p>PE 114—CROSS COUNTRY CONCEPTS 1 UNIT <i>18 Lecture hours</i> 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. Transfer: (CSU, UC)</p>
<p>PE 103—TRACK AND FIELD TEAM CONCEPTS 1 UNIT <i>18 Lecture hours</i> Specialized approach to track and field. Rules, training procedures, strategy, and performance evaluation. - (A-F or P/NP) Lecture. Transfer: (CSU, UC)</p>	<p>PE 115—OFFICIATING: FALL SPORTS 3 UNITS <i>54 Lecture hours</i> Regulations and techniques of officiating football and basketball. (A-F or P/NP) Lecture. Transfer: (CSU, UC)</p>
<p>PE 104 —WRESTLING THEORY 1 UNIT <i>9 Lecture hours, 27 Lab hours</i> Analysis of wrestling; rule interpretation, winning psychology, film analysis. Repeatable up to 2 units maximum. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)</p>	<p>PE 116—FOOTBALL TEAM PLAY CONCEPTS 2 UNITS <i>18 Lecture hours, 54 Lab hours</i> 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 may be required. (A-F or P/NP)(Fall) Transfer: (CSU, UC)</p>
<p>PE 105—DEFENSIVE FOOTBALL THEORY 2 UNITS <i>18 Lecture hours, 54 Lab hours</i> An analysis of defensive position and team play. Critical analysis of defensive techniques, rules, physical and mental training, and film evaluation. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)</p>	<p>PE 120—SPORTS AND SOCIETY 3 UNITS <i>54 Lecture hours</i> Examine sports as a significant aspect of modern culture and a major institution of modern society. 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 Lecture.(A-F or P/NP) Transfer: (CSU, UC)</p>
<p>PE 106—OFFENSIVE BASEBALL THEORY 2 UNITS <i>18 Lecture hours, 54 Lab hours</i> An analysis of offensive techniques, position and team play. Coverage of rules and training procedures. - (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)</p>	<p>PE 121—COACHING EFFECTIVENESS 3 UNITS <i>54 Lecture hours</i> 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 or P/NP) Transfer: (CSU, UC)</p>
<p>PE 107—DEFENSIVE BASEBALL THEORY 2 UNITS <i>18 Lecture hours, 54 Lab hours</i> An analysis of defensive techniques, position and team play. Coverage of rules and training procedures. - (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)</p>	<p>PE 122—ADAPTED PHYSICAL EDUCATION THEORY AND LAB 3 UNITS <i>36 Lecture hours, 54 Lab hours</i> 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. Transfer: (CSU, UC)(A-F Only)</p>
<p>PE 108 —CARE AND PREVENTION OF ATHLETIC INJURIES 3 UNITS <i>54 Lecture hours</i> Designed for prospective coaches, trainers, health and physical educators, and athletes; to 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. (A-F or P/NP) Lecture. Transfer: (CSU, UC)(CC HHP 4)</p>	<p>PE 124—INTRODUCTION TO KINESIOLOGY 3 UNITS <i>54 Lecture Hours</i> 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) Transfer: (CSU, UC) General Education: (MJC-GE: A)</p>
<p>PE 109—PEAK PERFORMANCE THROUGH MENTAL TRAINING 3 UNITS <i>54 Lecture hours</i> 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. Transfer: (CSU, UC)</p>	
<p>PE 110—OFFICIATING: SPRING SPORTS 3 UNITS <i>54 Lecture hours</i> Regulations and techniques of officiating baseball and softball. (A-F or P/NP) Lecture. Transfer: (CSU, UC)</p>	
<p>PE 111—APPLICATION OF SPORTS MEDICINE 3 UNITS <i>54 Lecture hours</i> <i>Prerequisite: Satisfactory completion of PE 108</i> 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. Lecture. (A-F Only) Transfer: (CSU, UC)</p>	

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. **Transfer:** CSU

PE 141—SUPERVISION IN ATHLETIC TRAINING 2 UNITS

18 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of PE 108.

Policies and procedures, emergency protocols, vital signs, bloodborne pathogens, and daily functions that are necessary for the student to work in the Athletic Treatment Center. Continued development in decision-making strategies, analysis, and an awareness of the factors related to medical protocols. Basic skill development in working in the Athletic Treatment Center with athletes and coaches for an in depth experience related to sports medicine.—Field trips might be required. (A-F or P/NP) **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) **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) **Transfer:** (CSU)

PE 144—SUPERVISION IN ATHLETIC TRAINING 4 2 UNITS18 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) **Transfer:** (CSU)

PE 194—INTRODUCTION TO WORLD DANCE 3 UNITS

54 Lecture hours

Also offered as THETR 194

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 more will be explored. (A-F only) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:C) (CSU-GE: C1)(GETC: 3A)

PEA

(Physical Education: Adapted Activities)

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. (MJC Activities). **Transfer:** (CSU, UC)

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. (MJC Activities). **Transfer:** (CSU, UC)

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. (MJC Activities). **Transfer:** (CSU, UC)

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. **Transfer:** (CSU, UC) **Graduation:** (MJC 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. - (A-F or P/NP) Lab. **Transfer:** (CSU, UC) **Graduation:** (MJC Activities).

NON-CREDIT COURSES

PEA 800—ADAPTIVE EXERCISE FOR MATURE ADULTS

35 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. Repeatable. Field trips are not required. (Non-Graded course)

PEC

(Physical Education: Coed Activities)

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) Transfer: (CSU, UC) **Graduation:** (MJC 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. **Transfer:** (CSU, UC) **Graduation:** (MJC 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. (MJC Activities). **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. (MJC Activities). **Transfer:** (CSU, UC)

PEC 120—HIP HOP

1 UNIT

Also offered as: THETR 170

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. (A-F or P/NP) **Transfer:** (CSU, UC) (MJC Activities)

PEC 122—MODERN DANCE 1

1 UNIT

54 Lab hours

Also offered as: THETR - 185

Formerly listed as: THETR - 185 Beginning Modern Dance

Basic modern dance technique, beginning composition, improvisation, dance history, and philosophy. Dance as an art form and as recreation. - (A-F or P/NP) Lab. (MJC Activities). **Transfer:** (CSU, UC)

PEC 123—MODERN DANCE 2

1 UNIT

54 Lab hours

Also offered as: THETR - 186

Formerly listed as: THETR - 186A: Intermediate Modern Dance

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 185 or satisfactorily complete PEC 122.

Introduction, exploration, and experience in choreography and performance. Movement through space, energy and time, and compositional form. - (A-F or P/NP) Lab. **Transfer:** (CSU, UC) **Graduation:** (MJC Activities)

PEC 124—MODERN DANCE 3

1 UNIT

54 Lab hours

Also offered as: THETR - 187

Formerly listed as: THETR - 187A: Advanced Modern Dance

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 186 or satisfactorily complete PEC 123.

Emphasis on advanced technical and artistic performance skills, composition, improvisation, partnering, and dance history. - (A-F or P/NP) Lab. (MJC Activities). **Transfer:** (CSU, UC)

PEC 126—JAZZ 1

1 UNIT

54 Lab hours

Also offered as: THETR - 188

Formerly listed as: THETR - 188A: Jazz Dance

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. - (A-F or P/NP) Lab. (MJC Activities) **Transfer:** (CSU, UC)

PEC 127—BALLET 2

1 UNIT

Also offered as: THETR - 177

54 Lab hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 133 or THETR 189.

Intermediate level ballet technique and terminology. Students are required to have appropriate dance shoes and dance attire. - Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) **Graduation:** (MJC Activities)

PEC 128—AEROBICS

1 UNIT

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. (MJC Activities). **Transfer:** (CSU, UC)

PEC 129—JAZZ 2

1 UNIT

54 Lab hours

Also offered as: THETR - 129

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 188 or PEC 126.

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. - (A-F or P/NP) Lab. MJC. Activities. **Transfer:** (CSU, UC)

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) Transfer: (CSU, UC) **Graduation:** (MJC Activities)

PEC 132—JAZZ 3 INTERMEDIATE/ADVANCED

1 UNIT

Also offered as: THETR - 130

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 129 or satisfactorily complete PEC 129.

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. (A-F or P/NP) Transfer: (CSU, UC) **Graduation:** (MJC Activities)

PEC 133—BALLET 1

1 UNIT

Also offered as: 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. (A-F or P/NP) Transfer: (CSU, UC) **Graduation:** (MJC Activities)

<p>PEC 135—SPRINGBOARD DIVING 1 UNIT <i>54 Lab hours</i> 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. Four completions allowed. (A-F or P/NP) Lab. (MJC Activities). Transfer: (CSU, UC)</p>	<p>PEC 148—YOGA FOR BETTER HEALTH 1 UNIT <i>54 Lab hours</i> 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. Transfer: (CSU, UC) Graduation: (MJC Activities). PEC 150X,A—INTERMEDIATE YOGA FOR BETTER HEALTH $\frac{1}{2}$, 1 UNIT <i>X=4.38 Lecture hours, 13.12 Lab hours, A=9 Lecture hours, 27 Lab hours</i> <i>Recommended for Success: PEC 148 or prior experience in yoga.</i></p>
<p>PEC 139—BALLET 3 1 UNIT <i>Also offered as: THETR - 117</i> <i>54 Lab Hours</i> <i>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 177 or satisfactorily complete PEC 127.</i> Intermediate/Advanced level ballet technique and terminology. Audition and instructor approval required. Field trips might be required. (A-F or P/NP) Transfer: (CSU,UC) Graduation: (MJC: Activities)</p>	<p>Intermediate class using yoga postures, breathing, and relaxation techniques to increase flexibility, strength, balance and coordination. Lecture/Laboratory. (MJC Activities). Transfer: (CSU, UC)</p>
<p>PEC 140—EXERCISE FOR FITNESS 1 UNIT <i>54 Lab hours</i> Cardiovascular improvement and respiratory efficiency through a variety of physical activities consisting of continuous motion exercises. - (A-F or P/NP) Lab. Transfer: (CSU, UC)</p>	<p>PEC 157—ADVANCED JUDO 1 UNIT <i>54 Lab hours</i> <i>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.</i> Intermediate and advanced skills (standing, mat and falling techniques) and strategies to improve judo techniques and enhance competitiveness. - (A-F or P/NP) Lab. (MJC Activities). Transfer: (CSU, UC)</p>
<p>PEC 142—EXERCISE FOR FITNESS 2 1 UNIT <i>54 Lab Hours</i> 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) Transfer: (CSU, UC) Graduation: (MJC Activities)</p>	<p>PEC 159A—SPIRIT LEADERSHIP TRAINING 3 UNITS <i>18 Lecture hours, 162 Lab hours</i> Instruction, training and development of a corps of spirit leaders to promote enthusiasm for school athletic activities. Lab. (MJC Activities). Transfer: (CSU, UC)</p>
<p>PEC 143—BEGINNING GOLF 1 UNIT <i>54 Lab hours</i> Fundamentals of golf. - (A-F or P/NP) Lab. Transfer: (CSU, UC) Graduation: (MJC Activities). PEC 144—Intermediate Golf 1 Unit <i>54 Lab hours</i> <i>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.</i> Further application of the fundamentals and rules of golf for the improvement of game skills and knowledge. - (A-F or P/NP) Lab. Transfer: (CSU, UC) Graduation: (MJC Activities).</p>	<p>PEC 162—AIKIDO 1 BASIC 1 UNIT <i>54 Lab Hours</i> <i>Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate physical activity, such as falling down and standing up. Students are also advised to consult a physician if they are pregnant, or have significant health problems.</i> An introduction to 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) Transfer: (CSU, UC) Graduation: (MJC Activities)</p>
<p>PEC 145—ADVANCED GOLF 1 UNIT <i>Formerly listed as: PEC - 145A: Advanced Golf</i> <i>54 Lab Hours</i> <i>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 144.</i> Acquisition and development of advanced golf skills and strategies for tournament play Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)</p>	<p>PEC 163—AIKIDO 2 INTERMEDIATE 1 UNIT <i>Formerly listed as: PEC - 163: Aikido 2, Intermediate</i> <i>54 Lab Hours</i> <i>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.</i> 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) Transfer: (CSU, UC) Graduation: (MJC Activities)</p>
<p>PEC 146—BALLET 4 1 UNIT <i>Also offered as: THETR - 118</i> <i>54 Lab Hours</i> <i>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 117 or satisfactorily complete PEC 146.</i> Advanced level ballet technique and terminology. Audition and instructor approval required. Field trips might be required. (A-F or P/NP) Transfer: (CSU,UC) Graduation: (MJC: Activities)</p>	<p>PEC 164—SELF DEFENSE 1 UNIT <i>54 Lab hours</i> 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. (MJC Activities). Transfer: (CSU, UC)</p>
<p>PEC 147—GYMNASTICS 1 UNIT <i>Also offered as: PEC - 147A: Gymnastics</i> <i>54 Lab Hours</i> Tumbling, floor exercise, stunts, and acrobatic skills are taught and practiced in progression and combined for skill development— Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC Activities)</p>	<p>PEC 165—BEGINNING JUDO 1 UNIT <i>54 Lab hours</i> <i>Formerly listed as: PEC - 165: Judo</i> 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 may be required. (A-F or P/NP) Lab. Transfer: (CSU, UC) Graduation: (MJC Activities).</p>

COURSES: **PEC**

PEC 166XA—INTERMEDIATE JUDO ½, 1 UNIT

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. (MJC Activities). **Transfer:** (CSU, UC)

PEC 168—BEGINNING SWIMMING 1 UNIT

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-F or P/NP) Lab. (MJC Activities) **Transfer:** (CSU, UC)

PEC 169 X,A—INTERMEDIATE SWIMMING ½, 1 UNIT

54 Lab hours
Recommended for success: Satisfactory completion of PEC 168A.

Continued development in basic stroke techniques and endurance for intermediate swimming. May be completed up to 4 times. Lecture/Lab. (A-F or P/NP). (MJC Activities). **Transfer:** (CSU, UC)

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. Four completions allowed. (A-F or P/NP) Lab. (MJC Activities) **Transfer:** (CSU, UC)

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. (MJC Activities). **Transfer:** (CSU, UC)

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. (MJC Activities). **Transfer:** (CSU, UC)

PEC 175—BEGINNING TENNIS 1 UNIT

54 Lab hours
 Fundamental skills in tennis. - (A-F or P/NP) Lab. (MJC Activities). **Transfer:** (CSU, UC)

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. **Transfer:** (CSU, UC) **Graduation:** (MJC 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. - (A-F or P/NP) Lab. **Transfer:** (CSU, UC) **Graduation:** (MJC 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. Four completions allowed. (A-F or P/NP) Lab. **Transfer:** (CSU, UC) **Graduation:** (MJC Activities).

PEC 179—Track and Field 1 Unit

54 Lab hours
 Generalized training and techniques for track and field. Four completions allowed. (A-F or P/NP) Lab. **Transfer:** (CSU, UC) **Graduation:** (MJC 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. Four completions allowed. (A-F or P/NP) Lab. **Transfer:** (CSU, UC) **Graduation:** (MJC Activities).

PEC 183—Volleyball 1 Unit

54 Lab hours
 Fundamentals of volleyball. - (A-F or P/NP) Lab. **Transfer:** (CSU, UC) **Graduation:** (MJC 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) Four completions allowed. Lab (MJC Activities). **Transfer:** (CSU, UC)

PEC 186 —INTERMEDIATE VOLLEYBALL 1 UNIT

54 Lab hours
 Intermediate volleyball skills, theories, offensive, and defensive strategy. - (A-F or P/NP) Lab. **Transfer:** (CSU, UC) **Graduation:** (MJC 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. (MJC Activities). **Transfer:** (CSU, UC)

PEC 190X,A—ADVANCED WATER POLO ½, 1 UNIT

X= 4.38 Lecture hours, 13.12 Lab hours, A= 9 Lecture hours, 27 Lab hours
Recommended for Success: Satisfactory completion of PEC 189 or equivalent.

Advanced team play and game strategy in water polo for recreation exercise. Four completions allowed. Lecture/Laboratory. (A-F or P/NP)(Summer) (MJC Activities). **Transfer:** (CSU, UC)

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) **Transfer:** (CSU) **Graduation:** (MJC 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) **Transfer:** (CSU, UC) **Graduation:** (MJC 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. **Transfer:** (CSU, UC) **Graduation:** (MJC 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. Four completions allowed. Field trips are not required. (A-F or P/NP) **Transfer:** (CSU, UC) **Graduation:** (MJC Activities)

PEM

(Physical Education: Men's Activities)

PEM 108—BASEBALL 1 UNIT
54 Lab Hours

Fundamentals and theory of collegiate baseball. Field trips are not required. (A-F or P/NP) Four completions allowed. **Transfer:** (CSU, UC) **Graduation:** (MJC Activities)

PEM 112—BEGINNING BASKETBALL 1 UNITS
54 Lab Hours

Basic skills, strategies, and rules of basketball. Field trips are not required. (A-F or P/NP) **Transfer:** (CSU, UC) **Graduation:** (MJC: Activities)

PEM 113X, A—INTERMEDIATE BASKETBALL ½, 1 UNIT
X= 4.38 Lecture hours, 13.12 Lab hours, A=9 Lecture hours, 27 Lab hours

Intermediate skills and theory. Basic team play concepts. Lecture/Laboratory. (MJC Activities). **Transfer:** (CSU, UC)

PEM 114—ADVANCED BASKETBALL 1 UNIT
54 Lab Hours

Advanced skills, theory, and concepts of competitive basketball team play. (A-F or P/NP) **Transfer:** (CSU, UC) **Graduation:** (MJC: 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) **Transfer:** (CSU, UC) **Graduation:** (MJC Activities)

PEM 141—ADVANCED TOUCH FOOTBALL 1 UNIT
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. Four completions allowed. (A-F or P/NP) **Transfer:** (CSU, UC) **Graduation:** (MJC 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. Four completions allowed. Field trips are not required. (A-F or P/NP) **Transfer:** (CSU, UC) **Graduation:** (MJC 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. (A-F or P/NP) **Transfer:** (CSU, UC) **Graduation:** (MJC 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. (A-F or P/NP) **Transfer:** (CSU, UC) **Graduation:** (MJC: Activities)

PEVM

(Physical Education: Varsity Men's Activities)

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
175 Lab hours

Instruction, training, and competition in intercollegiate baseball. Four completions allowed. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC)

PEVM 105—MEN'S VARSITY BASKETBALL (FALL) 3 UNITS
175 Lab hours

Recommended for Success: PE 101
Instruction, training and competition in intercollegiate basketball. Laboratory/Other. (Fall) Four completions allowed. (A-F Only) (MJC Activities). **Transfer:** (CSU, UC)

PEVM 106—MEN'S VARSITY BASKETBALL - SPRING 1½ UNITS
90 Lab hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEVM 105.

Continued instruction, training, and competition in intercollegiate basketball (Spring semester) Four completions allowed. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC)

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. (MJC Activities). **Transfer:** (CSU, UC)

PEVM 115—VARSITY FOOTBALL 3 UNITS
175 Lab hours

Instruction, training, and competition in intercollegiate football. Four completions allowed. Field trips may be required. (A-F or P/NP) Lab. (MJC Activities). **Transfer:** (CSU, UC)

COURSES: **PEVM - PEVW**

PEVM 120—MEN'S VARSITY GOLF **3 UNITS**
175 Lab hours

Instruction, training, and competition in intercollegiate golf. Four completions allowed. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC)

PEVM 122—MEN'S VARSITY SOCCER **3 UNITS**
175 Lab hours

Instruction, training, and competition in intercollegiate soccer. Four completions allowed. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC)

PEVM 125—MEN'S VARSITY SWIMMING AND DIVING **3 UNITS**
175 Lab hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 170 and satisfactorily complete PEC 195.

Instruction, training, and competition in intercollegiate swimming and diving. Four completions allowed. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC)

PEVM 130—MEN'S VARSITY TENNIS **3 UNITS**
175 Lab hours

Instruction, training, and competition in intercollegiate tennis. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC)

PEVM 135—MEN'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. (MJC Activities). **Transfer:** (CSU, UC)

PEVM 140—MEN'S VARSITY WATER POLO **3 UNITS**
175 Lab hours

Instruction, training, and competition in intercollegiate water polo. Four completions allowed. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC)

PEVM 145—VARSITY WRESTLING **3 UNITS**
175 Lab hours

Instruction, training, and competition in intercollegiate wrestling. Four completions allowed. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC)



PEVW

(Physical Education: Varsity Women's Activities)

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 **3 UNITS**
175 Lab hours

Instruction, training, and competition in intercollegiate basketball. (Fall semester) Four completions allowed. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC)

PEVW 101—WOMEN'S VARSITY BASKETBALL - SPRING **1½ UNITS**
90 Lab hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEVW 100.

Continued instruction, training, and competition in intercollegiate basketball. (Spring Semester) Four completions allowed. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC)

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. (MJC Activities). **Transfer:** (CSU, UC)

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. (MJC Activities). **Transfer:** (CSU, UC)

PEVW 120—WOMEN'S VARSITY SOFTBALL **3 UNITS**
175 Lab hours

Instruction, training, and competition in intercollegiate softball. Four completions allowed. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC)

PEVW 123—WOMEN'S VARSITY SOCCER **3 UNITS**
175 Lab hours

Instruction, training, and competition in intercollegiate soccer. Four completions allowed. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC)

PEVW 125—WOMEN'S VARSITY SWIMMING AND DIVING **3 UNITS**
175 Lab hours

Instruction, training, and intercollegiate competition in swimming and diving. Four completions allowed. Lab. (A-F or P/NP) (MJC Activities). **Transfer:** (CSU, UC)

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. (MJC Activities). **Transfer:** (CSU, UC)

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. (MJC Activities). **Transfer:** (CSU, UC)

PEVW 140—WOMEN'S VARSITY VOLLEYBALL **3 UNITS**
175 Lab hours

Instruction, training, and competition in intercollegiate volleyball. Four completions allowed. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC)

PEVW 145—WOMEN'S VARSITY WATER POLO **3 UNITS**
175 Lab hours

Instruction, training and competition in intercollegiate water polo. Four completions allowed. Laboratory/Other. (Fall) (MJC Activities). **Transfer:** (CSU, UC)

PEW

(Physical Education: Women's 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) Transfer: (CSU, UC) **Graduation:** (MJC Activities)

PEW 166X, A—WOMEN'S SELF DEFENSE ½,1 UNIT

X=9 Lecture hours, A=9 Lab hours, A=18 Lecture hours, 18 Lab hours

A practical course in women's self defense. Practice of various basic techniques and principles of balance, leverage and momentum. Discussion and practical exercises on how to avoid threatening situations in the home or on the street. Open to all female students. Lecture/ Laboratory. (MJC Activities). **Transfer:** (CSU, UC)

PEW 167X, A—WOMEN'S BEGINNING JUDO ½,1 UNIT

X=4.38 Lecture hours, 13.12 Lab hours, A=9 Lecture hours, 27 Lab hours

Instruction and practice in the basic skills of the sport of Judo used for women as self defense. Course will cover terminology, etiquette, throwing and grappling techniques with integration of various Katas (forms), Randori (free exercise) and Japanese jujutsu. - Lecture/Lab. (A-F or P/ NP) (MJC Activities). **Transfer:** (CSU, UC).

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 Four completions allowed. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) **Graduation:** (MJC 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) Transfer: (CSU) **Graduation:** (MJC 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. (P/NP only). (MJC Activities). **Transfer:** (CSU, UC)

Pharmacy Technician

Courses are offered through Community Education (209) 575-6063

PHILO (Philosophy)

Dean: Cecelia Hudelson

Division Office: Founders Hall 100

Phone: (209) 575-6129

Division website: mjc.edu/prospective/programs/bbss/

Instructors: Bill Anelli, Stan Spector

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. 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? (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (CC PHILO 1) **General Education:** (MJC-GE: C)(CSU-GE: C2)(IGETC: 3B)

PHILO 103—SYMBOLIC LOGIC 3 UNITS

54 Lecture hours

Also offered as CMPSC 103

An introduction to modern deductive logic; includes sentential and predicate logic with identity theory and definite descriptions. Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: D2)(CSU-GE: A3)

PHILO 105—REASONING 3 UNITS

54 Lecture hours

Prerequisite: Satisfactory completion of ENGL 101

An examination of logic and its practical application in everyday situations, including problem solving, advertisement discrimination, political evaluation and argumentation. 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. (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 concepts of good, duty, egoism, altruism, freedom, personal and social responsibility. (A-F or P/NP) Lecture **Transfer:** (CSU, UC) **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 may be required. Lecture. (A-F or P/NP) **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) **Transfer:** (CSU, UC)(CC HUMAN/PHILO 4) **General Education:** (MJC-GE: C)(CSU-GE: C2) (IGETC: 3B)

PHILO 120—HISTORY OF PHILOSOPHY: ANCIENT 3 UNITS

54 Lecture hours

Western ideas and philosophies from ancient Greece to the 15th century, with a consideration of prominent Eastern philosophies. The primary focus is on Greek and Roman philosophy, and the development of Christian philosophy through the middle ages. Some of the topics include free will/determinism, the nature of existence, being, definition and logic. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C)(CSU-GE: C2)(IGETC: 3B)

PHILO 121—HISTORY OF PHILOSOPHY: MODERN 3 UNITS

54 Lecture hours

Western ideas and philosophers in the 17th and 18th centuries, with a consideration of the rise of modern science, rationalist and empiricist philosophies, and the critical and transcendental philosophy of Kant (A-F and P/NP) Lecture. **Transfer:** (CSU, UC) **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 **Transfer:** (CSU, UC) (CC PHILO 25) **General Education:** (MJC-GE: C)(CSU-GE: C2)(IGETC: 3B)

PHILO 130—POLITICAL THEORY 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. **Transfer:** (CSU, UC) **General Education:** (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. **Transfer:** (CSU, UC) **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 reasonings 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) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

Phlebotomy

Courses are offered through MJC Community Education (209) 575-6063

PHYS (Physics)

Dean: Brian Sanders

Division Office: Science Building, Room 126

Phone: (209) 575-6173

Division website: www.mjc.edu/current/programs/divdepts/sme/

Instructors: Kenneth Meidl, Thomas Nomof

PHYS 101—GENERAL PHYSICS: MECHANICS 5 UNITS

54 Lecture hours, 54 Lab hours, 18 Discussion hours

Prerequisite: Satisfactory completion of PHYS 165 and MATH 171.

Introduction to calculus-based physics: linear, rotational, and oscillatory mechanics with computer applications. Field trips may be required. (A-F or P/NP) Lecture/Lab /Discussion.

Transfer: (CSU, UC) (CC PHYSCS 5A) **General Education:** (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

PHYS 102—GENERAL PHYSICS: WAVES THERMODYNAMICS, & OPTICS 5 UNITS

54 Lecture hours, 54 Lab hours, 18 Discussion hours

Prerequisite: Satisfactory completion of PHYS 101 and MATH 172.

Continuation of calculus-based physics: thermodynamics, wave motion, acoustics and optics. Field trips may be required. (A-F or P/NP) Lecture/Lab /Discussion. **Transfer:** (CSU, UC)

General Education: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

PHYS 103—GENERAL PHYSICS: ELECTRICITY MAGNETISM, & MODERN PHYSICS 5 UNITS

54 Lecture hours, 54 Lab hours, 18 Discussion hours

Prerequisite: Satisfactory completion of PHYS 101 and MATH 172.

Continuation of calculus-based physics: electricity, magnetism and modern physics. Field trips may be required. (A-F or P/NP) Lecture/Lab/Discussion. **Transfer:** (CSU, UC) (CC PHYSCS 5B)

General Education: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

PHYS 142—MECHANICS, HEAT, & WAVES 5 UNITS

54 Lecture hours, 54 Lab hours, 18 Discussion hours

Prerequisite: Satisfactory completion of MATH 122.

Non-calculus introduction to principles and laws of mechanics, thermodynamics and waves. Field trips may be required. (A-F or P/NP) Lecture/Lab/Discussion. **Transfer:** (CSU, UC) (CC PHYSCS 4A) **General Education:** (MJC-GE: A) (CSU-GE: B1, B3)(IGETC: 5A, 5C)

PHYS 143—ELECTRICITY, MAGNETISM, OPTICS ATOMIC AND NUCLEAR STRUCTURES 5 UNITS

54 Lecture hours, 54 Lab hours, 18 Discussion hours

Prerequisite: Satisfactory completion of PHYS 142.

Continuation of PHYS 142, including electricity, magnetism, light and atomic structure. Field trips may be required. (A-F or P/NP) Lecture/Lab/Discussion. **Transfer:** (CSU, UC) (CC PHYSCS 4B) **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 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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (CC PHYSCS 1)

General Education: (MJC-GE: A) (CSU-GE: B1)(IGETC: 5A)

PHYS 165—INTRODUCTORY PHYSICS**5 UNITS***54 Lecture hours, 54 Lab hours, 18 Discussion 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. (A-F or P/NP) Lecture/Lab./Discussion. **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 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. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

PHYSO (Physiology)

Dean: Brian Sanders

Division Office: Science Building, Room 126

Phone: (209) 575-6173

Division website: www.mjc.edu/current/programs/divdepts/sme/

Instructors: David Ward, Michele Monlux, Pamela Upton, Robert Droual

PHYSO 101—INTRODUCTORY HUMAN PHYSIOLOGY**5 UNITS***72 Lecture hours, 54 Lab hours**Prerequisite: Satisfactory completion of BIO 116 or BIO 111 or BIO 101 and ANAT 125 and CHEM 143.*

Study of body function, organ system integration, communication, and homeostasis at the biochemical, cellular, and system levels. Includes control of osmolarity, protein synthesis and cellular metabolism; cellular communication; neural information processing; blood movement; fluid balance; respiration and digestion; reproduction; sensory perception and control of movement. Intended for students entering the health professions. (A-F or P/NP) Lecture/Lab./Discussion. **Transfer:** (CSU, UC) (CC BIOL 60) (MJC ANAT 125 + PHYSO 101 = CC BIO 10+60) **General Education:** (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)

PHYSO 103—INTRODUCTION TO NEUROSCIENCE**3 UNITS***Also offered as: PSYCH - 103**54 Lecture hours**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) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: A) (CSU-GE: B2) (IGETC: 5B)

PLSC (Plant Science)

Dean: Mark A. Anglin

Division Office: Agriculture, Room 100

Phone: (209) 575-6200

Division website: www.mjc.edu/prospective/programs/agens/index.html

Instructors: David Baggett, Mike Morales, Dale Pollard

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

PLSC 235—PLANT PROPAGATION/ PRODUCTION**3 UNITS***Also offered as: EHS - 235**36 Lecture Hours, 54 Lab Hours**Recommended for Success: Before enrolling in this course, students are strongly advised to 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. Field trips are required. (A-F Only) **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) **Transfer:** (CSU, UC)

COURSES: PLSC - POLSC

PLSC 250—PLANT NUTRITION AND FERTILIZER 3 UNITS
54 Lecture 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) **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) **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) **Transfer:** (CSU)

PLSC 287—INTEGRATED PEST MANAGEMENT 1 UNIT
18 Lecture hours
Formerly listed as PLSC 387

Current topics and discussion on integrated pest management, designed to satisfy Department of Pesticide Regulation requirements for certified pesticide applicator's continuing education. Field trips may be required. Lecture. (A-F Only) **Transfer:** (CSU)



POLSC (Political Science)

Dean: Cecelia Hudelson
Division Office: Founders Hall 100
Phone: (209) 575-6129
Division website: mjc.edu/prospective/programs/bbss/
Instructors: Steven Miller

POLSC101— 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.

(A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (CC POLSC 10) **General Education:** (MJC-GE: B) (CSU-GE:D8) (IGETC: 4H) (AI: Group b)

POLSC 102—THE CONSTITUTION AND RIGHTS OF AMERICANS 3 UNITS
54 Lecture hours

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.

(A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:B) (CSU-GE: D8) (IGETC:4H) (AI: Group B)

POLSC 110—INTERNATIONAL RELATIONS 3 UNITS
54 Lecture hours

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

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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (CC POLSC 14) General

Education: (MJC-GE: B) (CSU-GE: D8) (IGETC: 4H)

POLSC 111—WAR & PEACE: FROM LENIN TO AL QAEDA 3 UNITS
54 Lecture hours

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

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. (A-F or P/NP) Lecture. **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. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: D8) (IGETC:4H) (AI: Group b)

POLSC 130—POLITICAL THEORY 3 UNITS
54 Lecture hours

Studies major political theorists and their analyses of political concepts, including democracy, freedom, authority, equality, and political leadership. Investigates how political theory is practically relevant and connected to current political issues. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: D8) (IGETC: 4H)

POLSC 131— AMERICAN POLITICAL THOUGHT 3 UNITS
54 Lecture hours

Examines American political thought and culture from the European discovery of the New World to the present. Detailed study of the writings of the Puritans, Jefferson, Madison, Harriet Jacobs, Melville, Lincoln, Susan B. Anthony, Bourne, Arendt, and others. (A-F or P/NP) Lecture **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: D8) (IGETC: 4H)

POLSC 140—COMPARATIVE POLITICS 3 UNITS
54 Lecture hours

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

Comparative survey of major totalitarian, authoritarian and democratic political systems.

Emphasis on Great Britain, France, Germany, Russia, People's Republic of China, Japan and selected Third World countries. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:B) (CSU-GE:D8) (IGETC:4H)

POLSC 195—INTERNSHIP IN POLITICAL SCIENCE DISCUSSION 1 UNIT

18 Lecture hours

Formerly listed as POLSC 195 - Internship in Political Science

Corequisite: Concurrent enrollment in POLSC 196.

Examines political internship experiences of students concurrently enrolled in POLSC 196A or 196B or 196C. Class meetings are for sharing learning experiences, analyzing issues related to public service, and collectively addressing issues associated with the internships. - (A-F or P/NP) Discussion. **Transfer:** CSU

POLSC 196A,B,C—INTERNSHIP IN POLITICAL SCIENCE 1,2,3 UNITS

A= 54 Lab hours, B=108 Lab hours, C=162 Lab hours

Corequisite: Concurrent enrollment in POLSC 195.

Supervised internship in a federal, state, or local government office; court; or political organization. - (A-F or P/NP) Lab **Transfer:** CSU

PSYCH (Psychology)

Dean: Cecelia Hudelson

Division Office: Founders Hall 100

Phone: (209) 575-6129

Division website: mjc.edu/prospective/programs/bbss/

Instructors: Shelly Fichtenkort, Rebecca Ganes, Bobby Hutchison, Lee Kooler, Teri Nicoll-Johnson

PSYCH 51—PSYCHOLOGY IN EVERYDAY LIFE 3 UNITS

54 Lecture hours

Recommended for Success: Satisfactory completion of ENGL 49.

Principles of human behavior and personality development and their application to today's world, including personal and job-related problem solving skills. Lecture. (A-F and P/NP)

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) **Transfer:** (CSU, UC) (CC: PSYCH 1) **General Education:** (MJC-GE: B) (CSU-GE: D9) (IGETC: 4I)

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.

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 sub-disciplines of psychology. Field trips might be required. (A-F Only) **Transfer:** (CSU, UC)

PSYCH 103—INTRODUCTION TO NEUROSCIENCE 3 UNITS

Also offered as: *PHYSO - 103: Introduction to Neuroscience*

Also offered as: *PHYSO - 103*

54 Lecture hours

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) **Transfer:** (CSU, UC)

General Education: (MJC-GE: A) (CSU-GE: B2) (IGETC: 5B)

PSYCH 104—INTRODUCTION TO SOCIAL PSYCHOLOGY 3 UNITS

Formerly listed as: *PSYCH - 104: Social Psychology*

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.

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) **Transfer:** (CSU, UC)

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) **Transfer:** (CSU, UC)

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)

Transfer: (CSU, UC) (CC: PSYCH 5) **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 various factors in the development of gender identity and gender roles, including psychological, sociological, biological and cultural influences. Field trips may be required. Lecture. (A-F or P/NP) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: D4, D9) (IGETC: 4D, 4I)

COURSES: **PSYCH - REC**

PSYCH 118—PHARMACOLOGY OF ABUSED SUBSTANCES 3 UNITS

54 Lecture hours

Also offered as HUMSR 118

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete HUMSR 116 or 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. (A-F or P/NP) Lecture. **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) **Transfer:** (CSU) (CC: PSYCH 30) **General Education:** (MJC-GE: E) (CSU-GE: D9, E)

PSYCH 141—HUMAN LIFESPAN 3 UNITS

54 Lecture hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PSYCH 101 and meet the eligibility requirements for ENGL 101.

Introduction to the scientific study of human development from conception through adulthood. Examines interplay of biological, psychological, social and cultural forces on the developing human being. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (CC PSYCH10) **General Education:** (MJC-GE: E) (CSU-GE: E) (IGETC: 4I)

Public Safety

For Public Safety course descriptions, please see EMS (Emergency Medical Services) and FSCI (Fire Science)

READ (Reading)

Dean (Interim): Maurice McKinnon

Division Office: Founders Hall, Room 200

Phone: (209) 575-6149

Division website: www.mjc.edu/current/programs/divdepts/litlang/

Instructors: Christopher Briggs, Dorothy Scully, Janelle Gray, Lawrence Scheg

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.

READ 40—READING COMPREHENSION 3 UNITS

54 Lecture hours

Provides students the opportunity to improve their reading comprehension of pre-collegiate materials. (A-F Only) Lecture.

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.

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.

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. **Transfer:** (CSU)

REC (Recreation)

Dean: William Kaiser, Ed.D.

Division Office: PE Office Building, Room 105

Phone: (209) 575-6269

Division website: www.mjc.edu/athletics

Instructor: Paul Aiello

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 may be required. (A-F or P/NP) Lecture **Transfer:** (CSU)

RLES (Real Estate)

Dean: Cecelia Hudelson

Division Office: Founders Hall 100

Phone: (209) 575-6129

Division website: mjc.edu/prospective/programs/bbss/

RLES 380—REAL ESTATE PRINCIPLES 3 UNITS

54 Lecture hours

Real estate principles and laws in California, including contracts, deeds, land titles, liens, escrows, leases, financing, land descriptions, mandatory disclosures, terminology, ethics, fair housing and licensing. Field trips may be required. Lecture.

RLES 381—REAL ESTATE PRACTICES 3 UNITS

54 Lecture hours

Prerequisite: Satisfactory completion of RLES 380

Practices and techniques of broker and salesperson including 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 real estate business. Field trips may be required. Lecture.

RLES 382—LEGAL ASPECTS OF REAL ESTATE 1 3 UNITS

54 Lecture hours

Prerequisite: Satisfactory completion of RLES 381

California real property laws including the principle 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. Lecture. Not offered every semester.

RLES 384—REAL ESTATE FINANCE 3 UNITS

54 Lecture hours

Prerequisite: Satisfactory completion of RLES 380 or 381.

Lending 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. Lecture. Not offered every semester.

RLES 385—REAL ESTATE APPRAISAL, RESIDENTIAL 3 UNITS

54 Lecture hours

Prerequisite: Satisfactory completion of RLES 380

Examination of appraisal process 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. Field trips may be required. Lecture.

RLES 392—BASIC ESCROW PROCEDURES 3 UNITS

54 Lecture hours

Prerequisite: Satisfactory completion of RLES 380 or 381.

Basic escrow elements and practices. Terms, phraseology, and documents. Preparation of instructions and statements and their use; legal descriptions; vesting of title, balancing, debits and credits, loan payoffs and dispensing funds. Lecture. Not offered every semester.

RSCR (Respiratory Care)

Dean: Patrick Bettencourt

Division Office: Glacier Hall, Room 165

Phone: (209) 575-6362

Division website: www.mjc.edu/alliedhealth

Instructors: Bonnie Hunt, Philip Labrador

RSCR 220—INTRODUCTION TO RESPIRATORY CARE 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) **Transfer:** (CSU)

RSCR 222—BASIC CARDIOPULMONARY ANATOMY AND PHYSIOLOGY 3 UNITS

54 Lecture hours

Formerly listed as RSCR 202

Prerequisites: Satisfactory completion of AP 150 or (ANAT 125 and PHYS 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) **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 may be required. Lecture/Laboratory. Materials fee required. (Spring)(A-F Only) (Fall) **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) **Transfer:** (CSU)

RSCR 232—CLINICAL 2 3½ UNITS

189 Lab hours

Formerly listed as RSCR 206

Prerequisites: Satisfactory completion of RSCR 230.

Concurrent Enrollment: 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 may be required. - Laboratory. (Fall)(P/NP Only) **Transfer:** (CSU)

COURSES: **RSCR - SIGN**

RSCR 240—ADVANCED CARDIOPULMONARY PHYSIOLOGY 4½ 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) **Transfer:** (CSU)

RSCR 242—CRITICAL CARE PROCEDURES 4½ UNITS

63 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of RSCR 222/RSCR 224/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 xray interpretation. Field trips are not required. (A-F Only) **Transfer:** (CSU)

RSCR 244—NEONATAL-PEDIATRIC RESPIRATORY CARE 2 UNITS

36 Lecture hours

Formerly listed as RSCR 214

Prerequisites: Satisfactory completion of RSCR 240 and 242.

Introduction to respiratory care in the neonatal patient. Topics include fetal and neonatal development, resuscitation, pathophysiology, and neonatal and pediatric respiratory care procedures. Also open to those holding valid Respiratory Care Practitioner or Registered Nurse license. Field trips may be required. Lecture. (Summer) (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) **Transfer:** (CSU)

RSCR 248—SELF-DIRECTED STUDY ½ UNIT

9 Lecture Hours

Prerequisite: Satisfactory completion of RSCR 242.

Limitations on Enrollment: Enrollment limited to students admitted to the Respiratory Care program.

Preparation for Therapist level clinical simulation exam. Students spend 1.5 hours per week on a self-directed basis completing computerized clinical teaching and testing simulations. Also open to those possessing a valid RCP license. Field trips are not required. (P/NP Only)

Transfer: (CSU)

RSCR 250—CLINICAL 3 3½ UNITS

183.75 Lab hours

Formerly listed as RSCR 213

Prerequisites: Satisfactory completion of RSCR 232.

Concurrent Enrollment: RSCR 240 and 242.

Clinical experience in the various critical care respiratory procedures and the equipment used for these procedures in various area hospitals. Field trips may be required. - Laboratory. Materials fee required. (P/NP Only)(Spring) **Transfer:** (CSU)

RSCR 251—NEONATAL AND PEDIATRIC CLINICAL PRACTICE 1 ½ UNIT

27 Lab hours

Prerequisites: Satisfactory completion of RSCR 242

Concurrent Enrollment: RSCR 244

Introduction to respiratory care clinical practice in perinatal, neonatal and pediatric care. Field trips may be required. Laboratory. (Summer)(P/NP Only) **Transfer:** CSU

RSCR 252—PHYSICIAN ROUNDS FOR RESPIRATORY CARE ½ UNIT

27 Lab hours

Formerly listed as RSCR 210

Concurrent Enrollment: RSCR 244 and 246.

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. Laboratory. (P/NP Only)(Fall)

Transfer: CSU

RSCR 253—NEONATAL AND PEDIATRIC CLINICAL PRACTICE 2 ½ UNIT

27 Lab hours

Prerequisites: Satisfactory completion of RSCR 242

Concurrent Enrollment: RSCR 244

Additional respiratory care clinical practice in perinatal, neonatal and pediatric care. Field trips may be required. Laboratory. (Summer)(P/NP Only) **Transfer:** CSU

RSCR 255—CLINICAL 4 4½ UNITS

243 Lab hours

Formerly listed as RSCR 254

Prerequisites: Satisfactory completion of RSCR 244

Concurrent Enrollment: 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 may be required. Laboratory. Materials fee required (items for malpractice liability insurance. (Fall)(P/NP Only) **Transfer:** CSU

RSCR 257—CLINICAL PRECEPTORSHIP 2½ UNITS

135 Lab hours

Formerly listed as RSCR 256

Prerequisites: Satisfactory completion of RSCR 244

Concurrent Enrollment: RSCR 246

Four week clinical preceptorship in which student must demonstrate proficiency in all areas of clinical respiratory care practice. Field trips may be required. Laboratory. (P/NP Only)(Fall)

Transfer: CSU

SIGN (Sign Language)

Dean (Interim): Maurice McKinnon

Division Office: Founders Hall, Room 200

Phone: (209) 575-6149

Division website: www.mjc.edu/current/programs/divdeps/litlang/

Instructors: Barbara Wells

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, 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 may be required. (A-F or P/NP) Lecture. **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 may be required. (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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:C) (CSU-GE:C2) (IGETC:3B, 6A)

SM (Sheet Metal)

Dean: Pedro Mendez**Office:** John Muir 258W**Phone:** (209) 575-6332**Division website:** www.mjc.edu/prospective/programs/teched/sheetmetal/**Instructors:** Sonny Gumm

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—VOCATIONAL SHEET METAL AND INSTALLATION 1 3 UNITS*54 Lecture hours**Formerly listed as SM 31*

Tools and machinery used by sheet metal trades. Training in the procedures using patterns, cutting, making seams and riveting metals. Safety in sheet metal shop. Basic mathematical application. Opportunities in the trade. Field trips may be required. Lecture. (A-F or P/NP)

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 may be required. Lecture. (A-F Only)

SOCIO (Sociology)

Dean: Cecelia Hudelson**Division Office:** Founders Hall 100**Phone:** (209) 575-6129**Division website:** mjc.edu/prospective/programs/bbss/**Instructors:** Richard Sweeney, Sandra Woodside**SOCIO 101—INTRODUCTION TO SOCIOLOGY 3 UNITS***54 Lecture hours*

The study of human social interaction, groups and societies with emphasis upon culture, social differences, institutions and change. Field trips may be required. Lecture. **Transfer:** (CSU, UC) (CC SOCIO 1) (C-ID SOCI 110) **General Education:** (MJC-GE: B) (CSU-GE: DO) (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 may be required. Lecture. **Transfer:** (CSU, UC) (CC SOCIO 2) (C-ID SOCI 115) **General Education:** (MJC-GE: B) (CSU-GE: DO) (IGETC: 4J)

SOCIO 125—SOCIOLOGY OF THE FAMILY 3 UNITS*54 Lecture hours*

Comparative and historical treatment of the family. Analysis of kinship and family structure; roles and relationships within the family. Assessment of contemporary society on the family in America. Lecture. **Transfer:** (CSU, UC) (CC SOCIO 12) (C-ID SOCI 130) **General Education:** (MJC-GE: B) (CSU-GE: DO) (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 may be required. Lecture. **Transfer:** (CSU, UC) (CC SOCIO 5) (C-ID SOCI 150) **General Education:** (MJC-GE: B) (CSU-GE: DO, 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. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: DO, 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. Once completion allowed. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: DO, D.3) (IGETC: 4J)

SOCSC (Social Science)

Dean: Cecelia Hudelson**Division Office:** Founders Hall 100**Phone:** (209) 575-6129**Division website:** mjc.edu/prospective/programs/bbss/**SOCSC 58—STUDENT LEADERSHIP DEVELOPMENT 2 UNITS***18 Lecture hours, 54 Lab hours*

Theory and practice of leadership. 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 may be required. - Lecture/Laboratory. (MJC Activities). **Transfer:** (CC GUIDE 115)

SOCS 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)

Transfer: (CSU, UC) **General Education:** (MJC-GE: B,C) (CSU-GE: D0, D4) (IGETC: 4D, 4J)

**SOCS 109—INTRODUCTION TO EDUCATION-
PRACTICUM IN TUTORING**

3 UNITS

Formerly listed as: SOCS - 109: Intro Education-Practicum in Tutoring

36 Lecture Hours, 54 Lab Hours

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 **Transfer:** (CSU)(CC EDUC 10)

SOCS 110—INTRODUCTION TO EDUCATION

3 UNITS

54 Lecture hours

Orientation to the teaching profession. Designed for prospective elementary, secondary or college teachers but open to all students. Students are required to observe and participate in community classrooms. Meets field experience requirements for teaching credential program. Fingerprint clearance and TB clearance is required. Lecture. **Transfer:** (CSU, UC)(CC EDUC 12)

General Education: (MJC-GE: B)

**SOCS 120A, 120B, 120C—COMPUTER
APPLICATIONS IN THE SOCIAL SCIENCES**

1,2,3 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 may be required. May be repeated to six units maximum. Lecture or Laboratory. **Transfer:** CSU

SOCS 154 – MOVIES WITH A MESSAGE

3 UNITS

54 Lecture hours

Also offered as FILM 154

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 may be required. Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C)(CSU-GE:C1)

SPAN (Spanish)

Dean (Interim): Maurice McKinnon

Division Office: Founders Hall, Room 200

Phone: (209) 575-6149

Division website: www.mjc.edu/current/programs/divdepts/litlang/

Instructors: Laura Manzo; Marcos Contreras, PhD; Marianne Franco, PhD

**SPAN 45 A,B,C,X —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 may be required. (A-F or P/NP) Lecture

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 may be required. (A-F or P/NP) Lecture. **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 may be required. Lecture. **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 may be required. (A-F or P/NP) Lecture **Transfer:** (CSU, UC) (CC SPAN 1A) **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 SPAN 101. Emphasis on preterite and imperfect tenses of the indicative mood. Equivalent to the satisfactory completion of three years of high school Spanish. Lecture. (A-F and P/NP) **Transfer:** (CSU, UC)(CC SPAN 1B) **General Education:** (MJC-GE: C)(CSU-GE: C2)(IGETC 3B, 6A)

SPAN 103—SPANISH 3

5 UNITS

90 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. Equivalent to the satisfactory completion of four years of high school Spanish. Lecture. (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

90 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. (A-F or P/NP). Field trips may be required. Lecture. **Transfer:** (CSU, UC) (CC SPAN 2B) **General Education:** (MJC-GE: C)(CSU-GE: C2)(IGETC: 3B,6A)

5 UNITS**SPAN 109—SPANISH FOR SPANISH SPEAKERS 1**

90 Lecture hours

Formerly listed as SPAN 109 - Spanish for Spanish 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, but with some formal academic study in the language.

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 reviews major elements of Spanish grammar and focuses on improving oral and written communication skills. Students expand on their own experiences and explore other Spanish Speaking cultures through the study of selected readings. Equivalent to the satisfactory completion of two years high school Spanish. Taught in Spanish. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:C)(CSU-GE:C2)(IGETC: 6A)

5 UNITS**SPAN 110—SPANISH FOR SPANISH SPEAKERS 2**

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 further improve their oral and written communication skills in standard Spanish through continued grammar review, vocabulary expansion and composition. Students will analyze and discuss topics about the diverse cultures of the Spanish speaking world through selected readings. Equivalent to the satisfactory completion of three years of high school Spanish. Taught in Spanish. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:C)(CSU-GE:C2)(IGETC:6A)

5 UNITS**SPAN 112—INTRODUCTION TO CHICANO/A LITERATURE**

54 Lecture hours

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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:C)(CSU-GE:C2)(IGETC:3B, 6A)

3 UNITS**SPAN 173—SURVEY OF LATIN AMERICAN LITERATURE**

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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE:C)(CSU-GE:C2)(IGETC:3B, 6A)

3 UNITS

SPCOM (Speech Communication)

Dean: Michael Sundquist

Division Office: Performing and Media Arts Center, Room 205

Phone: (209) 575-6081

Division website: www.mjc.edu/arts

Instructors: Allan McKissick, Barbara Adams, Charles Mullins, Jim Sahlman, Kim Gyuran, Leslie Collins, Todd Guy

The Speech Communication 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. Most courses are available to students in both day and evening hours.

SPCOM 100—FUNDAMENTALS OF PUBLIC SPEAKING

54 Lecture hours

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. Lecture. (A-F or P/NP) **Transfer:** (CSU, UC)(CC SPCOM 1)(C-ID COMM 110) **General Education:** (MJC-GE: D2)(CSU-GE: A1)(IGETC: 1C)

3 UNITS**SPCOM 101—VOICE AND ARTICULATION**

54 Lecture hours

Formerly listed as Basic Voice and Articulation

Training program in basic voice and articulation. Emphasis on critical listening, self-analysis and self-improvement in tone production and control, voice quality, articulation and pronunciation. Introduction to the International Phonetic Alphabet. This is not a class for persons with a major speech or language delay or disorder. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC)(CC SPCOM 18)

3 UNITS**SPCOM 102—INTRODUCTION TO HUMAN COMMUNICATION**

54 Lecture hours

The study of human communication including verbal, nonverbal and listening skills. Effective oral participation in interpersonal contexts, group discussions, and individual presentations in public settings. Lecture. (A-F or P/NP) **Transfer:** (CSU, UC)(CC SPCOM 4) **General Education:** (MJC-GE: D2)(CSU-GE: A1)(IGETC: 1C)

3 UNITS**SPCOM 103—INTERPERSONAL COMMUNICATION**

54 Lecture hours

Principles of interpersonal communication including perceptual, verbal and nonverbal elements. The study of theory, research findings, concepts and skills in interpersonal relationships as applied to various interactions, such as the male/female relationship, the family, and the workplace. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (C-ID COMM 130) **General Education:** (MJC-GE:B)(CSU-GE:D7)(IGETC: 4G)

3 UNITS**SPCOM 104—ARGUMENTATION**

54 Lecture hours

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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC)(CC SPCOM 2) (C-ID COMM 120) **General Education:** (MJC-GE: D2)(CSU-GE: A3)(IGETC: 1B)

3 UNITS

COURSES: **SPCOM**

SPCOM 105 — FORENSICS DEBATE 2 UNITS

18 Lecture hours, 54 Lab hours

Formerly listed as: SPCOM - 105: Forensics Workshop

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete SPCOM 107.

Principles of debate applied to preparation for participation as a judge and/or competitor in competitive debate. Students will prepare to participate in intercollegiate forensics. Competitive events include parliamentary, Lincoln/Douglas and policy debate. (A-F or P/NP) Lecture Lab. (MJC Activities). **Transfer:** (CSU) (CC SPCOM 7)

SPCOM 106 — GROUP & ORGANIZATIONAL COMMUNICATION 3 UNITS

54 Lecture hours

Formerly listed as SPCOM 106 - Organizational Communication

Also offered as SUPR 106

Communication within and between groups and organizations while enhancing relevant individual communication skills. Emphasis on communication and organizational theory as basis for focus on such communication processes as interviewing, task-oriented discussion, problem solving, leadership, conflict resolution and negotiation, communication climate, and organizational culture. (A-F or P/NP) Lecture. **Transfer:** (CSU)(C-ID COMM 140) (CC SPCOM 9) **General Education:** (MJC-GE: D2)

SPCOM 107 — INTRODUCTION TO DEBATE 3 UNITS

54 Lecture hours

Argumentation principles and the debate format. Emphasis on case construction, methods of attack and defense, communication strategies, and various forms of debate. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: D2) (CSU-GE: A3)

SPCOM 109 — WOMEN IN MANAGEMENT 3 UNITS

54 Lecture hours

Formerly listed as SPCOM 109 - Communication and Leadership Skills for Women in Management

Communication and leadership skills for effective business management. Emphasis on the women's movement into management positions, effective communication strategies in organizations, building teams, supervising employees, interpersonal skills, assertiveness training and decision-making skills. (A-F or P/NP) Lecture. **Transfer:** CSU

SPCOM 110 — PERSUASION 3 UNITS

54 Lecture hours

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 may be required. Lecture. (A-F or P/NP) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: D2) (CSU-GE: A1)(IGETC:1C)

SPCOM 115 — FORENSICS PLATFORM SPEECHES 2 UNITS

18 Lecture hours, 54 Lab hours

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

Principles of applied speech communication through preparation for participation in competitive speech performances. Students will prepare to participate in or judge platform events. Competitive events include informative speaking, persuasive speaking, communication analysis, speech to entertain, and after dinner speaking. (A-F or P/NP) Lecture Lab. **Transfer:** (CSU) **Graduation:** (MJC Activities).

SPCOM 120 — ORAL READING / INTERPRETATION 3 Units

54 Lecture Hours

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. Credit given for either THETR 120 or SPCOM 120, but not both. Field trips are not required. (A-F or P/NP) **Transfer:** (CSU, UC) (C-ID COMM 170) (CC DRAMA 20)

General Education: (MJC-GE: C) (CSU-GE: C1)

SPCOM 122 — INTRODUCTION TO READERS' THEATRE 3 UNITS

54 Lecture hours

Also offered as THETR 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 will be provided with the necessary theory, practice, and criticism to develop skills for organization and oral presentation of Readers' Theatre materials. Lecture. Field trips may be required. (A-F or P/NP) **Transfer:** (CSU, UC) **General Education:** (MJC-GE:C) (CSU-GE: C1)

SPCOM 123 — STORYTELLING 3 UNITS

Also offered as: THETR - 123: Storytelling

54 Lecture Hours

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) **Transfer:** (CSU) **General Education:** (MJC-GE: C) (CSU-GE: C1)

SPCOM 124 — ADVANCED READERS' THEATRE 3 UNITS

Also offered as: THETR - 124: Advanced Readers' Theatre

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete SPCOM 122 and 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) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C) (CSU-GE: C1)

SPCOM 125 — FORENSICS INTERPRETATION EVENTS 2 UNITS

18 Lecture hours, 54 Lab hours

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

Principles of applied speech communication through preparation for participation in competitive interpretation of literature performances. Students will prepare to participate in or judge interpretation events. Competitive events include prose, poetry, drama, duo, and oral interpretation plus readers theatre. (A-F or P/NP) Lecture Lab. (MJC Activities). **Transfer:** (CSU)

SPCOM 130 — INTERCULTURAL COMMUNICATION 3 UNITS

54 Lecture hours

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 may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) (CC SPCOM 5) **General Education:** (MJC-GE:B) (CSU-GE:D3, D7) (IGETC:4C, 4G)

SPCOM 135 — FORENSICS LIMITED PREPARATION EVENTS 2 UNITS

18 Lecture hours, 54 Lab hours

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

Principles of applied speech communication through preparation to participate in competitive speech performances. Students will prepare to participate in or judge Limited Preparation events. Competitive events include Impromptu Speaking and Extemporaneous Speaking. (A-F or P/NP) Lecture Lab. **Transfer:** (CSU) **Graduation:** (MJC Activities).

SPCOM 145 — PARLIAMENTARY PROCEDURE 1 UNIT

18 Lecture hours

Also offered as AGGE 145

Introduction to Parliamentary Procedure. Preparing for and participating in meetings as a member, officer, and chairperson. Rank and use of motions. - Lecture. (A-F or P/NP) **Transfer:** CSU

SPELL (Spelling)

Dean (Interim): Maurice McKinnon
 Division Office: Founders Hall, Room 200
 Phone: (209) 575-6149
 Division website: www.mjc.edu/current/programs/divdepts/litlang/

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.

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.

STSK (Study Skills/Counseling)

Dean: Lorena Dorn
 Division Office: Student Services Building, Room 226
 Phone: (209) 575-6080
 Division website: www.mjc.edu/prospective/getting_started/advising/index.html
 Instructors: Mary Silva, Theresa Ballance

STSK 25—STUDENT SUCCESS STRATEGIES 1 UNIT

18 Lecture 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 /Discussion.

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.

Introduction to educational, psychological and social factors necessary for college success. Topics include: goal setting, time management, note-taking, textbook reading, test-taking skills, memorization, concentration, motivation, writing and speaking, critical and creative thinking, learning styles, use of technology, diversity, health, relationships, finances, educational planning and career development. Acquaints students with the college, its curriculum, facilities, services, regulations, programs, degree and transfer requirements. Field trips may be required. (A-F Only) Lecture. MJC Guidance. **Transfer:** (CC GUIDE 100)

SUPR (Supervisory Management)

Dean: Cecelia Hudelson
 Division Office: Founders Hall 100
 Phone: (209) 575-6129
 Division website: mjc.edu/prospective/programs/bbss/

SUPR 106—GROUP & ORGANIZATIONAL COMMUNICATION 3 UNITS

54 Lecture hours

*Formerly listed as SUPR 106 - Organizational Communication
 Also offered as SPCOM 106.*

Communication within and between groups and organizations while enhancing relevant individual communication skills. Emphasis on communication and organizational theory as basis for focus on such communication processes as interviewing, task-oriented discussion, problem solving, leadership, conflict resolution and negotiation, communication climate, and organizational culture. (A-F or P/NP) Lecture. **Transfer:** CSU **General Education:** (MJC-GE: D2)

SUPR 351—ELEMENTS OF SUPERVISION 3 UNITS

54 Lecture hours

Nature and function of 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. Lecture.

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.

Introduction to W. Edward Deming's philosophy of Total Quality Management and its implications for improving the competitiveness of American business in the international economy. A variety of related management topics is also presented. Field trips are not required. (A-F or P/NP)

THETR (Theatre)

Dean: Michael Sundquist
 Division Office: Performing and Media Arts Center, Room 205
 Phone: (209) 575-6081
 Division website: www.mjc.edu/arts
 Instructors: Lori Bryhni, Lynette Borrelli, Michael Lynch

THETR 100—INTRODUCTION TO THEATRE ARTS 3 UNITS

54 Lecture Hours

Investigation of the process of the collective art of the theatre, the role of the actor, director, playwright, designer, technician and audience. Survey of the origins of the theatre, its development as an art form, and the social, political and cultural implications of this art form at various points in history. Attendance of MJC theatre productions required. Field trips might be required. (A-F or P/NP) **Transfer:** (CSU, UC) (CC DRAMA 10) **General Education:** (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

COURSES: **THETR**

THETR 103—DANCE REPERTORY REHEARSAL AND PERFORMANCE 2 UNITS

108 Lab hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 192.

Preparation and presentation of a modern/contemporary dance performance for public viewing. - Lecture/Lab. (A-F or P/NP) (MJC Activities). **Transfer:** (CSU, UC)

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) **Transfer:** (CSU, UC)(C-ID THTR 171) **Graduation:** (MJC Activities)

THETR 117—BALLET 3 1 UNIT

Also offered as: PEC - 139

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 177 or satisfactorily complete PEC 127.

Intermediate/Advanced level ballet technique and terminology. Audition and instructor approval required. Field trips might be required. (A-F or P/NP) **Transfer:** (CSU) **Graduation:** (MJC: Activities)

THETR 118—BALLET 4 1 UNIT

Also offered as: PEC - 146

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 117 or satisfactorily complete PEC 146.

Advanced level ballet technique and terminology. Audition and instructor approval required. Field trips might be required. (A-F or P/NP) **Transfer:** (CSU) **Graduation:** (MJC: Activities)

THETR 120—ORAL READING / INTERPRETATION 3 UNITS

Also offered as: SPCOM - 120: Oral Reading / Interpretation

54 Lecture Hours

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. Credit given for either THETR 120 or SPCOM 120, but not both. Field trips are not required. (A-F or P/NP) **Transfer:** (CSU, UC) (CC DRAMA 20) **General Education:** (MJC-GE: C) (CSU-GE: C1)

THETR 122—INTRODUCTION TO READERS' THEATRE 3 UNITS

54 Lecture hours

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 will be provided with the necessary theory, practice and criticism to develop skills for organization and oral presentation of Readers' Theatre materials. Field trips might be required. (A-F or P/NP) **Transfer:** (CSU, UC) (CC DRAMA 22) **General Education:** (MJC-GE: C) (CSU-GE: C1)

THETR 123—STORYTELLING 3 UNITS

54 Lecture hours

Formerly listed as SPCOM 123 - *Storytelling: The Interpretation Of Children's Literature*
Also offered as SPCOM 123

Introduction to the history of storytelling and the techniques of critical listening to, preparation and presentation of literature. Emphasis on sources, selection of materials, analysis, preparation and presentation of prose, verse, and drama. Designed to develop the adult reader's knowledge, critical ability, and appreciation of literature. Field trips may be required. Lecture. (A-F or P/NP) **Transfer:** (CSU) **General Education:** (MJC-GE:C)(CSU-GE: C1)

THETR 124—ADVANCED READERS' THEATRE 3 UNITS

54 Lecture hours

Recommended for Success: Satisfactory completion of (SPCOM 120 or 122) or (THETR 120 or 122.)

Also offered as SPCOM 124

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 may be required. Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C) (CSU-GE: C1)

THETR 129—JAZZ 2 1 UNIT

Also offered as: PEC - 129

54 Lab hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 188 or PEC 126.

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. (A-F or P/NP) **Transfer:** (CSU, UC) **Graduation:** (MJC Activities)

THETR 130—JAZZ 3 INTERMEDIATE/ADVANCED 1 UNIT

Also offered as: PEC - 132

54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 129 or satisfactorily complete PEC 129.

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. (A-F or P/NP) **Transfer:** (CSU) **Graduation:** (MJC: Activities)

THETR 131—FUNDAMENTALS OF CHOREOGRAPHY 1 2 UNITS

18 Lecture hours, 54 Lab hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 185 or satisfactorily complete PEC 122.

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 may be required. (A-F or P/NP) Lecture/Lab. (MJC Activities). **Transfer:** (CSU, UC)

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 in rehearsals and public performances is required. Field trips are not required. (A-F Only)

Transfer: (CSU) **Graduation:** (MJC: 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) **Transfer:** (CSU) **Graduation:** (MJC: Activities)

THETR 149—DANCE REPERTORY TOURING COMPETITION 1 UNIT

54 Lab Hours

Preparation of dance participants for attendance at the American College Dance Festival and other competitive conferences. Field trips might be required. (A-F Only) **Transfer:** (CSU) **Graduation:** (MJC: Activities)

THETR 151—DANCE REHEARSAL & PERFORMANCE 1 2 UNITS

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. (A-F Only) **Transfer:** (CSU) **Graduation:** (MJC: Activities)

THETR 152—DANCE REHEARSAL & PERFORMANCE 2 2 UNITS

108 Lab Hours

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

Study, production and performance of dance. Field trips might be required. (A-F Only) **Transfer:** (CSU) **Graduation:** (MJC: Activities)

THETR 153—CONTEMPORARY POP DANCE 2 UNITS

108 Lab Hours

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

Contemporary Pop dance rehearsal and public performance. Audition required. Field trips are not required. (A-F Only) **Transfer:** (CSU) **Graduation:** (MJC: Activities)

THETR 155—DANCE WORKSHOP PERFORMANCE 2 UNITS

108 Lab Hours

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

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) **Transfer:** (CSU) **Graduation:** (MJC: Activities)

THETR 156—REHEARSAL AND PERFORMANCE IN COMEDY 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 course focuses on ensemble performance techniques that are essential for a comedic play production. Participation in rehearsals and public performances is required. Field trips may be required. (A-F Only) Lab. (MJC Activities) **Transfer:** (CSU, UC) (CID-THTR 191)

THETR 157—REHEARSAL AND PERFORMANCE IN DRAMA 2 UNITS

108 Lab hours

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

Students participate as actors in a fully supported theatre production. This course focuses on individual and ensemble performance techniques that are essential for a modern dramatic, or tragic play production. Participation in rehearsals and public performances is required. - Field trips may be required. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC) (CID THTR 191)

THETR 158—REHEARSAL AND PERFORMANCE IN CLASSICAL THEATRE 2 UNITS

108 Lab hours

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

Students participate as actors in a fully supported theatre production. Focuses on individual and ensemble performance techniques that are essential for a classical play production. Participation in rehearsals and public performance is required. - Field trips may be required. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC) (CID THTR 191)

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 may be required. (A-F Only) Lab. (MJC Activities). **Transfer:** (CSU, UC) (CID THTR 191)

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) **Transfer:** (CSU, UC) (CC DRAMA 42) **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) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C) (CSU-GE: C1)

THETR 164—IMPROVISATIONAL ACTING 3 UNITS

45 Lecture hours, 27 Lab hours

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. May be completed up to 3 times. Field trips may be required. (A-F or P/NP). (MJC Activities). **Transfer:** (CSU, UC)

THETR 170—HIP HOP 1 UNIT

54 Lab Hours

*Also offered as: PEC - 120**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. (A-F or P/NP) (MJC Activities) **Transfer:** (CSU, UC)***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) **Transfer:** (CSU, UC) **Graduation:** (MJC Activities) (CID THTR 175)

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 may be required. (A-F or P/NP) Lecture Lab. **Transfer:** (CSU, UC) (CID THTR 174) **General Education:** (MJC Activities)

THETR 177—BALLET 2 1 UNIT

54 Lab hours

*Also offered as: PEC - 127**Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 133 or THETR 189.*

Intermediate level ballet technique and terminology. Students are required to have appropriate dance shoes and dance attire. Field trips might be required. (A-F or P/NP) Lab. (MJC Activities) **Transfer:** (CSU, UC)

COURSES: **THETR**

THETR 178—INTRODUCTION TO SCENERY DESIGN 3 UNITS

47 Lecture hours, 27 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 100.

Introduction to the art and practice of scenery design for the stage. History, functions and process of scene design, choosing color and texture, and the importance of lighting. Practical application will include scene painting and model building. Field trips may be required. (A-F or P/NP) Lecture/Lab. (MJC Activities). **Transfer:** (CSU, UC)

THETR 181—JAZZ 2 1 UNIT

Also offered as: PEC - 129
 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 188 or PEC 126.

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. (A-F or P/NP) Transfer: (CSU, UC) **Graduation:** (MJC 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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC) (CID THTR 173)

THETR 185—MODERN DANCE 1 1 UNIT

54 Lab hours
 Also offered as: PEC - 122
 Formerly listed as: THETR - 185A: Beginning Modern Dance

Basic modern dance technique, beginning composition, improvisation, dance history, and philosophy. Dance as an art form and as recreation. (A-F or P/NP) Lab. (MJC Activities) **Transfer:** (CSU, UC)

THETR 186—MODERN DANCE 2 1 UNIT

54 Lab hours
 Also offered as: PEC - 123
 Formerly listed as: THETR - 186A: Intermediate Modern Dance
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 185 or satisfactorily complete PEC 122.

Introduction, exploration, and experience in choreography and performance. Movement through space, energy and time, and compositional form. (A-F or P/NP) Lab. **Transfer:** (CSU, UC) **General Education:** (MJC Activities)

THETR 187—MODERN DANCE 3 1 UNIT

54 Lab hours
 Also offered as: PEC - 124
 Formerly listed as: THETR - 187A: Advanced Modern Dance

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 186 or satisfactorily complete PEC 123. Emphasis on advanced technical and artistic performance skills, composition, improvisation, partnering, and dance history.—(A-F or P/NP) Lab. (MJC Activities). **Transfer:** (CSU, UC)

THETR 188—JAZZ 1 1 UNIT

54 Lab hours
 Also offered as: PEC - 126
 Formerly listed as: THETR - 188A: Jazz Dance

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. —(A-F or P/NP) Lab. (MJC Activities) **Transfer:** (CSU, UC)

THETR 189—BALLET 1 1 UNIT

54 Lecture hours
 Also offered as: PEC - 133
 Formerly listed as: THETR 189: Ballet 1

Fundamental ballet technique and terminology. Students are required to have appropriate dance shoes and dance attire. —Field trips might be required. (A-F or P/NP) Lab. (MJC Activities). **Transfer:** (CSU, UC)

THETR 190AB—THEATRE PRODUCTION WORKSHOP 1, 2 UNITS

Formerly listed as: THETR - 190A: Theatre Production Workshop
 A= 54 Lab Hours, B= 108 Lab Hours

A repeatable, multi-technical, lab-only course focusing on the practical aspect of mounting and running a theatrical production. The class covers the following areas of construction and crew management: scenery, sound, lighting, properties, costumes, stage management, publicity, and house management.—Field trips are not required. (A-F or P/NP) **Transfer:** (CSU, UC) **Graduation:** (MJC Activities)

THETR 192—REHEARSAL & PERFORMANCE 1 UNIT

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 100.

Participation and instruction in rehearsal and performance of a role in an MJC production. Required activities may include all aspects involved in the production of plays as well as rehearsal. Field trips are required. (A-F or P/NP) Transfer: (CSU, UC) **Graduation:** (MJC Activities)

THETR 194—INTRODUCTION TO WORLD DANCE 3 UNITS

54 Lecture hours
 Also offered as: PEC 194.

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 required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C)(CSU-GE: C1)(GETC: 3A)

THETR 195—MOVEMENT FOR THE PERFORMING ARTIST 3 UNITS

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. (A-F Only) Lecture/Lab. (MJC Activities). **Transfer:** (CSU, UC)

THETR 196—THEATRE MANAGEMENT 1 UNIT

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 100.

The principals of theatre management: front-of-house operations; box office management and theatre business procedures; publicity and public relations; budget and organization for school, community and professional theatre. Field trips might be required. (A-F or P/NP) Transfer: (CSU) **Graduation:** (MJC Activities)

THETR 197 —BROADWAY/EUROPE THEATRE TRAVEL 1 UNIT

54 Lab hours

Preparation and participation in theatre related trips to New York City and Europe. The trips include theatre performances, backstage tours of theatre facilities, workshop sessions with performers, directors, writers, critics and scholars. Program also includes tours of fine art exhibits, museums and other cultural events. Field trips are required. (A-F or P/NP) Lab. **Transfer:** (CSU)

TUTOR (Tutoring)

TUTOR 50—TUTOR SEMINAR

18 Lecture hours, 54 Lab hours
Non-degree course.

2 UNITS

Designed for students to strengthen their effectiveness as tutors. Development of techniques of the tutoring process. Further development of strategies in the area of preparation, short and long-term planning, probing skills, critical thinking, study skills, and test-taking skills. Introduction to cultural understanding. Study of issues affecting tutors and students. Intended for students selected as tutors for the general campus. Lecture/Laboratory. (P/NP Only)

NON-CREDIT COURSES

TUTOR 810—TUTOR TRAINING

Designed as an introduction to the tutoring process. Introduction to preparation, expectations, probing skills, situations, and application of the learned techniques. Courses intended for students selected as tutors at MJC. Lecture/Laboratory.

TUTOR 850—SUPERVISED TUTORING

81 Lab hours

Provides for individual learning by students with expressed needs in study strategies, learning modes, and developmental materials. Learning experiences will be under instructional supervision. Repeatable. (Non-Graded course) Lab.

VOCWE

(Work Experience, Vocational)

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 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 0 UNITS

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.

VOCWE 349 A,B,C,D—WORK EXPERIENCE 1,2,3,4 UNITS

Prerequisite: Enrollment in a minimum of 7 units which may include Cooperative Work Experience and completion of or concurrent enrollment in one core or elective course in designated program.

Designed for students who wish to combine classroom experience with an expansion of skills or knowledge acquired at a site of employment on a paid or volunteer basis. Work must directly relate to the student's area of study. Conversely, student should have a designated area of study demonstrated by completion of or concurrent enrollment in at least a minimal number of courses in that designated program. Sixteen maximum units in any combination of vocational work experience courses. Lecture. Lab: 75 paid hours or sixty unpaid hours of related work experience per semester equals 1 unit.

WELD (Welding)

Dean: Pedro Mendez

Office: John Muir 258W

Phone: (209) 575-6332

Division website: www.mjc.edu/prospective/programs/teched/sheetmetal/

Instructors: Sonny Gumm

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 may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** CSU

WELD 204—GAS METAL ARC WELDING 3 UNITS

(G.M.A.W) & FLUX CORE ARC WELDING (F.C.A.W)

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 may be required. (A-F or P/NP) Lecture/Lab.

Transfer: CSU

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 non-ferrous sheet-metals and purge welding procedures for stainless steel tubing. Materials fee required. Field trips may be required. (A-F or P/NP) Lecture/Lab. **Transfer:** CSU

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 may be required. (A-F or P/NP) Lecture/Lab.

COURSES: **WELD - ZOO**

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 may be required. (A-F Only) Lecture/Lab.

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.

WKFSK (Workforce Skills)

Dean : Pedro Mendez

Office: John Muir 258W

Phone: (209) 575-6332

NON-CREDIT COURSES

WKFSK 801—INTRODUCTION TO WORKFORCE DEVELOPMENT SKILLS

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. Field trips may be required.—

WKFSK 802—THE ART OF ACTIVE LISTENING

16 Lecture hours

Training for employees on maximizing the effectiveness of communication in the workplace and elsewhere. Explores helpful listening techniques, dealing with listening problems, and negotiating win-win situations. Open-entry/open-exit. Lecture. Field trips may be required.—

WKFSK 803—TROUBLESHOOTING ON THE JOB

8 Lecture hours

Training for employees on efficient and effective problem solving. Topics discussed include problem definition, finding the root cause, creating solutions, implementation of solutions and monitoring for success. Open-entry/open-exit. Lecture. Field trips may be required. —

WKFSK 804—THE ART OF TEAMWORK

8 Lecture hours

Training for employees on becoming a true "team player." Topics covered include: team roles, facilitation, team communication, reaching agreements, team goal-setting, and effective leadership. Open-entry/open-exit. Lecture. Field trips may be required.—

WKFSK 810—SKILLS FOR SUCCEEDING AT A NEW JOB

8 Lecture hours

Intended for those just starting to work who are looking for skills to achieve success as a new employee. Explores in-depth job retention skills including job transition concepts, workplace expectations, customer service, attitude feedback and balancing work and personal life. Field trips may be required.—Lecture.

WKFSK 820—APPLIED MATHEMATICS FOR THE WORKPLACE

30 Lecture hours

An easy-to-use, computerized, open-entry/open-exit applied mathematics course. Methods to solve one-step mathematical operations and utilize these skills with work-related problems. Examples and situations focus on applying problem-solving skills in real-world situations. Uses a variety of interactive exercises so that the learner can practice each concept. A calculator function and formula sheet are available to the learner with a simple mouse-click. Detailed solutions to the problems are explained, allowing students to analyze their mistakes. A full human-voice sound track and immediate feedback aid learning. Non-graded.

ZOOL (Zoology)

Dean: Brian Sanders

Division Office: Science Building, Room 126

Phone: (209) 575-6173

Division website: www.mjc.edu/current/programs/divdepts/sme

Instructor: Teri Curtis

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. **Transfer:** (CSU, UC)(CC BIOL 4) (MJC BIO 101+ BOT101+ZOO101= CC BIO 2+4+6) **General Education:** (MJC-GE:A)(CSU-GE: B2, B3)(IGETC:5B, 5C)

**APPENDIX
DIVIDER
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