### A.S. DEGREE: AGRICULTURE: SALES, SERVICE

The student will learn step-by-step sales techniques, stage presence, self-evaluation of voice, habits, abilities in sales, and understanding of sales careers. This program will help students make decisions as to whether or not they are qualified in sales, and prepare them for a sales career if they choose that vocation. Contact the division office in the Agriculture Building for advising assistance.

#### PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate proficiency in accounting procedures using a double-entry bookkeeping system.
2. Organize and prepare reports, presentations, and other information pertaining to management procedures.
3. Describe the economic significance of California Agriculture and its relationship to the global economy.
4. Explain supply and demand as it relates to local and regional agriculture business industries.
5. Demonstrate the ability to make logical business decisions based on the analysis of business trends locally, regionally, and globally.
6. Demonstrate proficiency using computers, the internet, and other technology as they relate to agri-business.
7. Recognize world markets and describe their effect on local agriculture economies.

#### MAJOR REQUIREMENTS

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

#### I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 348-D</td>
<td>(NP) Work Experience ** (for a total of 4 units)</td>
<td>4 OR</td>
</tr>
<tr>
<td>AG 249 (NP)</td>
<td>Agriculture Internship**</td>
<td>2</td>
</tr>
</tbody>
</table>

**Work experience/internship must be in marketing, sales, or closely related.

#### II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>AGN 200 (NP)</td>
<td>Introduction to Biological Technology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 200 (NP)</td>
<td>Introduction to Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>NR 200 (NP)</td>
<td>Soils</td>
<td>4</td>
</tr>
<tr>
<td>PLS 200 (NP)</td>
<td>Introduction to Plant Science</td>
<td></td>
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</table>

#### III. MAJOR REQUIRED COURSES - COMPLETE 12 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEC 200 (2-4)</td>
<td>Agriculture Accounting &amp; Analysis</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 210 (NP)</td>
<td>Elements of Agricultural Economics</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 220 (3-4)</td>
<td>Agricultural Business Management</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 225 (NP)</td>
<td>Agricultural Computer Application</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 225 (NP)</td>
<td>Agricultural Computer Application</td>
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</tr>
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</table>

#### IV. ELECTIVE COURSES - COMPLETE 4 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any 200-700</td>
<td>Any 200 series Agriculture course with a laboratory. No more than 1 unit in a 300 level Agriculture class.</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required

TOTAL UNITS IN A.S. MAJOR .................................................. 30

TOTAL UNITS IN A.S. MAJOR .................................................. 30

**Required
## Medical Assisting Courses (MDAST)

**MDAST 320—INTRODUCTION TO MEDICAL ASSISTING** 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as: MDAST - 320: Intro. to Medical Assisting
Corequisite: Concurrent enrollment in MDAST 322 and MDAST 323.
Introduction to laboratory procedures necessary to aid the physician. Includes patient preparation for diagnostic studies, purposes, and techniques of medical assisting. Field trips may be required. (A-F Only) Lecture/Lab.

**MDAST 321—MEDICAL TERMINOLOGY** 3 UNITS
54 Lecture Hours
Emphasizing logical and rational understanding of word parts. Covers medical terms organized according to body systems, including fundamental understanding of basic anatomy, function, diseases, and surgeries of each body system. (A-F Only) Lecture. Transfer: (CC OFTEC 50)

**MDAST 322—MEDICAL ASSISTING ADMINISTRATIVE PROCEDURES** 3.5 UNITS
36 Lecture Hours, 81 Lab Hours
Formerly listed as: MDAST - 322: Medical Assisting Administrative
Corequisite: Concurrent enrollment in MDAST 320 and MDAST 323.
Medical Assisting Administrative procedures including financial record keeping, insurance claims, bank functions, payroll, and medical records. Students receive training in completing the above procedures manually and with computer. Field trips may be required. (A-F Only) Lecture/Lab.

**MDAST 323—MEDICAL ASSISTING CLINICAL PROCEDURES** 3 UNITS
36 Lecture Hours, 54 Lab Hours
Corequisite: Concurrent enrollment in MDAST 322 and MDAST 320.
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 PHARMACOTHERAPY** 4 UNITS
63 Lecture Hours, 27 Lab Hours
Formerly listed as: MDAST - 324: Intro to Diseases/Pharmacology
Corequisite: Concurrent enrollment in MDAST 322 and MDAST 320 and MDAST 323.
Pathogenesis and discussion of representative diseases, and 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.
Orientation to the medical office and the role of the medical assistant. Professional responsibilities and communications, ethics, and legal responsibilities; history of medicine and medical assisting. 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: Practicum
Prerequisite: Satisfactory completion of MDAST 320 and MDAST 322 and MDAST 323.
Practicum consists of two 8-week rotations in which students apply knowledge in performing administrative and clinical procedures. Students also receive training in taking the national certification exam and seeking employment. (A-F Only) Lecture/Lab.

## Meteorology Courses (MFTEO)

**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, tornados, and hurricanes), and the causes and consequences of climate and climate change. Lab activities involve gathering and analysis of meteorological data (both archived and real-time) to understand and predict weather events. Field trips may be required. (A-F Only) Lecture/Lab. Transfer: (CSU) General Education: (M-JE-A) (CSU-GE: B1, B3) (IGETC: S5, SC)

## Microbiology Courses (MICRO)

**MICRO 101—MICROBIOLOGY** 4 UNITS
54 Lecture Hours, 54 Lab Hours
Prerequisite: Satisfactory completion of BIO 116 or BIO 101 or BIO 111 and CHEM 143.
Intended primarily for medical assisting students. Students are advised to satisfactorily complete MATH 70. Culture, growth, reproduction, and pathogenesis of microorganisms, microbial metabolism, genetics, and immunity, infection and immunity, and antimicrobials. Intended for student entering the health professions. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education: (M-JE-A) (CSU-GE: B2, B3) (IGETC: S5, SC)
A.S. DEGREE: ACCOUNTING

The A.S. in Accounting Degree is designed for students entering into the accounting field at the entry level. If you wish to pursue professional certification (i.e., Certified Public Accountant and/or Certified Management Accountant), you should plan to earn at least a bachelor’s degree in Business Administration with a major in Accounting. To earn an Associate in Science Degree, the student must complete the MJC Associate Degree Requirements in addition to the following coursework.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Recognize and analyze ethical issues as they apply to the business environment.
2. Obtain employment in an entry-level position in the accounting field.
3. Demonstrate the working knowledge required to perform the various tasks necessary in a complete accounting cycle through financial statements.

REQUIRED COURSES COMPLETE 19 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BUSAD 201</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSAD 202</td>
<td>Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSAD 200</td>
<td>Spreadsheet Skills for Financial Accounting</td>
<td>2</td>
</tr>
<tr>
<td>BUSAD 203</td>
<td>Computer Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 319</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 336</td>
<td>Tax Accounting</td>
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ELECTIVE COURSES - COMPLETE A MINIMUM OF 6 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BUSAD 201</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSAD 202</td>
<td>Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSAD 274</td>
<td>Human Resources Management</td>
<td>3 OR</td>
</tr>
<tr>
<td>BUSAD 377</td>
<td>Human Relations in Business</td>
<td>3 OR</td>
</tr>
<tr>
<td>BUSAD 248</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 240</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 300</td>
<td>Machine Calculation</td>
<td>2</td>
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<tr>
<td>BUSAD 50</td>
<td>Business Computations</td>
<td>3</td>
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<tr>
<td>BUSAD 310</td>
<td>Bookkeeping</td>
<td>1</td>
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<tr>
<td>OFADM 359</td>
<td>Introduction to Spreadsheet Software</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 361</td>
<td>Introduction to Databases</td>
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</table>

TOTAL UNITS FOR A.S. MAJOR ............................................................... 25

CERTIFICATE OF ACHIEVEMENT: ACCOUNTING

The Accounting Certificate is designed for students entering into the accounting field at the entry level. If you wish to pursue professional certification (i.e., Certified Public Accountant and/or Certified Management Accountant), you should plan to earn at least a bachelor’s degree in Business Administration with a major in Accounting.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Recognize and analyze ethical issues as they apply to the business environment.
2. Obtain employment in an entry-level position in the accounting field.
3. Demonstrate the working knowledge required to perform the various tasks necessary in a complete accounting cycle.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES - COMPLETE 24 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAD 201</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSAD 202</td>
<td>Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSAD 274</td>
<td>Human Resources Management</td>
<td>3 OR</td>
</tr>
<tr>
<td>BUSAD 377</td>
<td>Human Relations in Business</td>
<td>3 OR</td>
</tr>
<tr>
<td>BUSAD 248</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 240</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 310</td>
<td>Bookkeeping</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 201</td>
<td>General Computer Literacy</td>
<td>3 OR</td>
</tr>
<tr>
<td>OFADM 356</td>
<td>Introduction to Spreadsheet Software</td>
<td>1 AND</td>
</tr>
<tr>
<td>OFADM 361</td>
<td>Introduction to Databases</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .......................... 27 - 28

* Pending State Chancellor’s Office approval.

CERTIFICATE OF ACHIEVEMENT: ACCOUNTING CLERK

The Accounting Clerk Certificate is designed for students planning to enter the job market in an entry level accounting clerk/front office position. Certificate are awarded to students in recognition of completion of specified requirements, which indicate proficiency. All Required Courses must be passed with a “C” grade or better. Interested students should consult Business Administration or Office Administration faculty advisors.
PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Utilize technology to perform general office procedures.
2. Obtain entry level employment as an accounting clerk.
3. Demonstrate the working knowledge required to perform the various tasks necessary in a complete accounting cycle.

REQUIRED COURSES - COMPLETE 14.5-18.5 UNITS

OFADM 301 [1] Beginning Keyboarding ..................................................0.5
OFADM 303 [1] Keyboarding for Speed and Accuracy ..................................................0.5
OFADM 356 [1] Introduction to Word Processing ..................................................1
OFADM 359 [2] Introduction to Spreadsheet Software ........................................ 1 OR
BUSAD 310 [1] Bookkeeping 1 .................................................................3
BUSAD 331 [2] Beginning Computer Accounting Software ........................................ 1 AND
BUSAD 332 [2] Intermediate Computer Accounting Software .................................. 1 OR
BUSAD 300 [1] Machine Calculation .............................................................2 OR
OFADM 375 [1] 10-Key on the Computer .....................................................1
BUSAD 50 [1] Business Computations .........................................................3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ...........14.5 - 18.5

Administration of Justice PROGRAM

Modesto Junior College offers a comprehensive Administration of Justice program. The curriculum addresses basic knowledge and skills required in the criminal justice area.

The two-year college program is designed to prepare candidates for employment or transfer to a four-year educational institution offering a major in one of the criminal justice fields. Satisfactory completion of the requirements will lead to the Associate in Arts degree or the Associate in Science degree. Classes are offered both day and evening. The college cooperates with the Administration of Justice Advisory Committee.

All courses are open to individuals who have been admitted to the college and who meet the prerequisites, unless specifically exempted by statute. Courses which involve the handling of firearms, mace, or baton are not open to individuals who have been convicted of a felony or who are mental patients. (Penal Code Section 12021 for firearms, 12403.7 for mace, and Welfare and Institutions Code 8100). Prior to use of a firearm in any course, each student must submit to a live scan check of their fingerprint.

Prior to use of a firearm in any course, each student must sign a declaration to the effect that he/she is not prohibited from such use by Penal Code Section 12021. Students are also advised that some of the Administration of Justice courses involve actual or simulated experiences which require considerable agility and physical ability.

All candidates for degrees in Administration of Justice must consult with an Administration of Justice advisor to select the courses most appropriate for meeting both the MJC Associate Degree Requirements and the current demands of employing agencies and transfer institutions.

A.S.-T DEGREE: ADMINISTRATION OF JUSTICE

Modesto Junior College offers a comprehensive Administration of Justice program. The curriculum addresses basic knowledge and skills required in the criminal justice area. The Associate of Science in Administration of Justice for Transfer degree is designed to prepare candidates for transfer to a California State University offering a major in administration of justice/criminal justice. Course work is offered evidence, community relations corrections and law. Some potential careers are in the Administration of Justice field Correctional Officer, Legal Officer, Student, State Highway Patrol Officer, Investigator, Private Detective, Private Security Guard, Probation Officer, and Parole Officer. All courses are open to individuals who have been admitted to the college and who meet the prerequisites, unless specific exclusion by statute. Courses which involve the handling of firearms are not open to individuals who have been convicted of a felony or who are mental patients. (Penal Code Sections 29800 – 29825 and Welfare and Institutions Code 8100). Prior to use of a firearm in any course, each student must submit to a live scan check of their fingerprint.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Explain the roles that the three components of the administration of justice system play in society and how these components interact with one another to provide public safety.
2. Define the role of policing and recognize importance of building and maintaining favorable community relations.
3. Interpret, assess and compare competing values of evidence and data.
4. Identify the legal and societal restrictions placed by society on the administration of justice system in carrying out its role or providing for the public safety of society.

THE FOLLOWING IS REQUIRED FOR THE ASSOCIATE IN SCIENCE IN ADMINISTRATION OF JUSTICE FOR TRANSFER DEGREE:

A minimum of 18 semester units in the major with a grade of C or better while maintaining a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. All courses within the major must be completed with a C or better.

Completion of 60 semester CSU-transferable units using the CSU GE Breadth or the IGETC pattern. Exactly 60 semester units are required for the degree.

REQUIRED CORE - 6 UNITS

ADJU 201 [NP] Introduction to Administration of Justice ........................................3
ADJU 203 [NP] Concepts of Criminal Law .........................................................3

LIST A: TWO COURSES - 6 UNITS

ADJU 202 [NP] Prin. and Proc. of the Justice System ...........................................3
ADJU 204 [NP] Legal Aspects of Evidence .........................................................3
ADJU 212 [NP] Criminal Investigations .............................................................3
ADJU 235 [NP] Introduction to Corrections .........................................................3
ADJU 232 [NP] Juvenile Justice Procedures .........................................................3

LIST B: TWO COURSES - MINIMUM OF 6 UNITS

SOCIO 101 [NP] Introduction to Sociology ............................................................3
MATH 134 [NP] Mathematical Ideas and Applications ...........................................5
PSYCH 101 [NP] General Psychology .................................................................3
ADJU 145C [NP] Community Agency Fieldwork ...............................................3
ADJU 205 [NP] Community Relations ...............................................................3
ADJU 230 [NP] Communications in Criminal Justice .......................................3
ADJU 213 [NP] Patrol Procedures .................................................................3
ADJU 217 [NP] Substance Abuse .................................................................3
ADJU 222 [NP] Profiling Terrorism .................................................................3
ADJU 234 [NP] Crime Causation .................................................................3
ADJU 243 [NP] Domestic Violence Crisis Intervention ......................................3
A: ADMINISTRATION OF JUSTICE

TOTAL UNITS REQUIRED IN A.S.-T MAJOR ..............................................18-20
UNITS REQUIRED FOR CSU-GE BREADTH ..............................................39
UNITS REQUIRED FOR IGETC/CSU BREADTH ........................................37-39
CSU TRANSFERABLE ELECTIVES (AS NEEDED) .................................15-17
DOUBLE-COUNTED UNITS ........................................................................12
TOTAL UNITS REQUIRED FOR A.S.-T DEGREE ....................................60

*Note: Double counting courses in GE and the major is permissible.
Guidance and Activities requirements are not required for the Associate in Science in
Administration of Justice for Transfer degree.

A.S. DEGREE: ADMINISTRATION OF JUSTICE

Modesto Junior College offers a comprehensive Administration of Justice program. The
curriculum addresses basic knowledge and skills required in the criminal justice area. The
two-year college program is designed to prepare candidates for employment or transfer
to a four-year educational institution offering a major in various criminal justice fields.
Satisfactory completion of the requirements will lead to the Associate in Science degree.
Classes are offered both day and evening. The college cooperates with the Administration
of Justice Advisory Committee. All courses are open to individuals who have been
admitted to the college and who meet the prerequisites, unless specifically exempted
by statute. Courses which involve the handling of firearms are not open to individuals
who have been convicted of a felony or who are mental patients. (Penal Code Sections
29800 – 29825 and Welfare and Institutions Code 8100). Prior to use of a firearm in any
course, each student must submit to a live scan check of their fingerprints. All candidates
for degrees in Administration of Justice should consult with an Administration of Justice
advisor to select the courses most appropriate for meeting both the MJC Associate Degree
Requirements and the current demands of employing agencies and transfer institutions.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. The student will be able to discuss the roots of the American legal system and how
   it applies to today’s criminal justice profession, including ethical dilemmas confronting
today’s society.
2. The student will be able to create narrative reports, develop note taking skills, create
   visual simulations and develop interview techniques.
3. The student will describe the value of diversity and its inclusion rather than exclusion
   into the criminal justice system.
4. The student will be able to select a topic and be able to solve a social / criminal justice
   issue.

To earn an associate in science degree in this major, the student must complete the
requirements detailed in the Career Technical Education Pathway (p. 101) or the University
Preparation Pathway (p. 97) which include completion of the requirements below.
Associate in Science degree candidates may select an option in either Law Enforcement
(policing, sheriff, etc.) or Corrections (prison, parole, probation, etc.).

REQUIRED COURSES – COMPLETE 18 UNITS

ADJU 201 (Lecture) Introduction to Administration of Justice .....................3
ADJU 202 (Lecture) Prin. and Proc. of the Justice System ..........................3
ADJU 203 (Lecture) Concepts of Criminal Law ..........................................3
ADJU 204 (Lecture) Legal Aspects of Evidence ...........................................3
ADJU 205 (Lecture) Community Relations ...................................................3
ADJU 212 (Lecture) Criminal Investigation ................................................3

ELECTIVE COURSES – COMPLETE 12 UNITS

ADJU 144 (NP) Community Agency Service ..............................................1
ADJU 145A-D (NP) Community Agency Practicum ..................................1,2,3,4

ADJU 210 (NP) Communication in Criminal Justice ................................3
ADJU 211 (NP) Introduction to Firearms ..................................................3
ADJU 212 (NP) Advanced Firearms & Range Application ......................3
ADJU 217 (NP) Substance Abuse ..............................................................3
ADJU 222 (NP) Profiling Terrorism ...........................................................3
ADJU 223 (NP) Juvenile Justice Procedures .............................................3
ADJU 224 (NP) Crime Causation .............................................................3
ADJU 225 (NP) Introduction to Corrections .............................................3
ADJU 226 (NP) Correctional Law .............................................................3
ADJU 243 (NP) Domestic Violence Crisis Intervention ............................3
ADJU 351 (NP) Elements of Supervision in Public Safety .........................3

MINIMUM UNITS IN A.S. MAJOR ..........................................................30

SKILLS RECOGNITION: SUPERVISORY MANAGEMENT IN PUBLIC SAFETY

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. The student will be able to discuss management, supervision and human resources as it
   relates to today’s criminal justice profession.
2. The student will be able to analyze ethical dilemmas confronting law enforcement.
3. The student will describe the value of diversity and its inclusion rather than exclusion
   into the criminal justice system.
4. The student will be able to select a topic and be able to solve a social / criminal justice
   issue.

To earn a Skills Recognition Award, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES – COMPLETE 12 UNITS

ADJU 351 (NP) Elements of Supervision in Public Safety ..........................3
SUPR 106 (NP) Group & Organizational Communication ........................3
SUPR 364 (NP) Total Quality Management ..............................................3
BUSAD 274 (NP) Human Resources Management ....................................3

TOTAL UNITS FOR SKILLS RECOGNITION AWARD ..................................12

Administration of Justice Courses (ADJU)

ADJU 144——COMMUNITY AGENCY SERVICE 1 UNIT
18 Lecture Hours
Formerly listed as ADJU 145
Prerequisite: Satisfactory completion of ADJU 201.
Corequisite: Concurrent enrollment in ADJU 145.
Analysis of field experiences of students concurrently enrolled in ADJU 145A, 145B,
145C, or 145D. Class time is devoted to sharing and evaluating problems that develop,
and ways of resolving them will be sought by class members. Field trips may be required.
(A-F Only) Lecture. Transfer: (CSU)
<table>
<thead>
<tr>
<th>COURSE</th>
<th>UNITS</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>ADJU 145A,B,C,D—COMMUNITY AGENCY SERVICE FIELDWORK</td>
<td>1-4</td>
<td></td>
</tr>
<tr>
<td>A=18 Discussion Hours, B=36 Discussion Hours, C=54 Discussion Hours, D=72 Discussion Hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: Satisfactory completion of ADJU 201</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concurrent enrollment: ADJU 145</td>
<td></td>
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</tr>
<tr>
<td>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)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADJU 201—INTRODUCTION TO ADMINISTRATION OF JUSTICE</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>54 Lecture Hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formerly listed as: ADJU 201: Intro to Administration of Justice</td>
<td></td>
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</tr>
<tr>
<td>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: D0) (IGETC: 4H)</td>
<td></td>
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<tr>
<td>ADJU 202—PRINCIPLES/PROCEDURES OF JUSTICE SYSTEM</td>
<td>3</td>
<td></td>
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<tr>
<td>54 Lecture Hours</td>
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<tr>
<td>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.</td>
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<tr>
<td>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)</td>
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<tr>
<td>ADJU 203—CONCEPTS OF CRIMINAL LAW</td>
<td>3</td>
<td></td>
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<tr>
<td>54 Lecture Hours</td>
<td></td>
<td></td>
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<tr>
<td>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201 and satisfactorily complete ADJU 202.</td>
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</tr>
<tr>
<td>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: 4H)</td>
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<tr>
<td>ADJU 204—LEGAL ASPECTS OF EVIDENCE</td>
<td>3</td>
<td></td>
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<tr>
<td>54 Lecture Hours</td>
<td></td>
<td></td>
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<tr>
<td>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201 and satisfactorily complete ADJU 202 and satisfactorily complete ADJU 203.</td>
<td></td>
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<tr>
<td>Origin, development, philosophy, and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds of degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies. Field trips might be required. (A-F Only) Transfer: (CSU) (CID-AJ 124)</td>
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<tr>
<td>ADJU 205—COMMUNITY RELATIONS</td>
<td>3</td>
<td></td>
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<tr>
<td>54 Lecture Hours</td>
<td></td>
<td></td>
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<tr>
<td>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)</td>
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<tr>
<td>ADJU 210—COMMUNICATIONS IN CRIMINAL JUSTICE</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>54 Lecture Hours</td>
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<td></td>
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<tr>
<td>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)</td>
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<tr>
<td>ADJU 212—CRIMINAL INVESTIGATION</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>54 Lecture Hours</td>
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<tr>
<td>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.</td>
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<tr>
<td>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)(CID-AJ140)</td>
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<tr>
<td>ADJU 213—PATROL PROCEDURES</td>
<td>3</td>
<td></td>
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<tr>
<td>54 Lecture Hours</td>
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<tr>
<td>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.</td>
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<tr>
<td>Responsibilities, techniques, and methods of police patrol. Field trips might be required. (A-F Only) Transfer: (CSU)</td>
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<tr>
<td>ADJU 215—INTRODUCTION TO FIREARMS</td>
<td>3</td>
<td></td>
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<tr>
<td>54 Lecture Hours</td>
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<tr>
<td>Limitations on Enrollment: Enrollment limited to students who have submitted a Live Scan Application to the State of California Department of Justice for fingerprint clearance. This course is restricted under California Penal Code Section 12021, course requires handling and possessing of firearms. Convicted felons, persons addicted to any narcotic or convicted of any offense involving the violent use of a firearm are not allowed to enroll in the course based on Penal Code Section 12021. Historical evolution, ownership evaluation, moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms; demonstrate basic marksmanship and instruction in use of firearms. Students must provide own ammunition. The instructor reserves the right to remove a student from the firing range due to safety violation. Field trips might be required. (A-F Only) Transfer: (CSU)</td>
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<tr>
<td>ADJU 216—ADVANCED FIREARMS AND RANGE APPLICATION</td>
<td>3</td>
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<tr>
<td>54 Lecture Hours</td>
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<tr>
<td>Prerequisite: Satisfactory completion of ADJU 215.</td>
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<tr>
<td>Limitations on Enrollment: Enrollment limited to students who have submitted a Live Scan Application to the State of California Department of Justice for fingerprint clearance. This course is restricted under California Penal Code Section 29800; course requires handling and possessing of firearms. Convicted felons, persons addicted to any narcotic or convicted of any offense involving the violent use of a firearm are not allowed to enroll in the course based on Penal Code Section 29800.</td>
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</tbody>
</table>
A continuation of ADJU 215. In-depth review of legal aspects of firearms. Tactical analysis and decision making skill building. Range firing of various weapons. Students must provide own ammunition. The instructor reserves the right to remove a student from the firing range due to a safety violation. Field trips might be required. (A-F Only) 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 1.5 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)

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 corrections is designed to give the student an understanding of the concepts of criminal parole, probation and the correctional system. The course covers historical development of correctional processes, current trends, and future directions of the correctional field. Students will examine local, state and federal correctional systems. Field trips might be required. (A-F Only) Transfer: (CSU, UC) (CID-AJ 200)

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 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 ADJU201.

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)
Agricultural Business PROGRAM

This program will develop and expand the student’s knowledge of Agriculture Business. The student will develop knowledge and skills sufficient to gain and hold entry-level jobs in Ag Business. Contact the division office in the Agriculture Building for advising assistance.

A.S. DEGREE: AGRICULTURE BUSINESS

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate proficiency in accounting procedures using a double-entry bookkeeping system.
2. Organize and prepare reports, presentations, and other information pertaining to managerial procedures.
3. Describe the economic significance of California Agriculture and its relationship to the global economy.
4. Explain supply and demand as it relates to local and regional agriculture business industries.
5. Demonstrate the ability to make logical business decisions based on the analysis of business trends locally, regionally, and globally.
6. Demonstrate proficiency using computers, the Internet, and other technology as they relate to agri-business.
7. Recognize world markets and describe their effect on local agriculture economics.

MAJOR REQUIREMENTS

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 115</td>
<td>Introduction to Agricultural Education &amp; Careers</td>
<td>1</td>
</tr>
<tr>
<td>AG 249</td>
<td>Agriculture Internship</td>
<td>2</td>
</tr>
<tr>
<td>AG 349A-B-C</td>
<td>Work Experience Agriculture - Supervised Practice</td>
<td>1 - 4</td>
</tr>
</tbody>
</table>

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLSC 200</td>
<td>Introduction to Plant Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 200</td>
<td>Introduction to Animal Science</td>
<td></td>
</tr>
<tr>
<td>NR 200</td>
<td>Soils</td>
<td>4</td>
</tr>
<tr>
<td>AGM 200</td>
<td>Introduction to Mechanical Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

III. MAJOR REQUIRED COURSES - COMPLETE 12 UNITS

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AGEC 200</td>
<td>Agricultural Accounting and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 210</td>
<td>Elements of Agricultural Economics</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 220</td>
<td>Agricultural Business Management</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 225</td>
<td>Agriculture Computer Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

IV. ELECTIVE COURSES - COMPLETE 4 UNITS

Any 200 series Agriculture course with a laboratory. No more than 1 unit in a 300 level Agriculture class.

TOTAL UNITS: 30

**Required

**Work experience/internship must be in marketing sales or closely related.

**Pending State Chancellor's Office approval.

A.S. DEGREE: AGRICULTURE: SALES, SERVICE

The student will learn step-by-step sales techniques, stage presence, self-evaluation of voice, habits, abilities in sales, and understanding of sales career. This program will help students make decisions as to whether or not they are qualified in sales, and prepare them for a sales career if they choose that vocation. Contact the division office in the Agriculture Building for advising assistance.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate proficiency in accounting procedures using a double-entry bookkeeping system.
2. Organize and prepare reports, presentations, and other information pertaining to managerial procedures.
3. Describe the economic significance of California Agriculture and its relationship to the global economy.
4. Explain supply and demand as it relates to local and regional agriculture business industries.
5. Demonstrate the ability to make logical business decisions based on the analysis of business trends locally, regionally, and globally.
6. Demonstrate proficiency using computers, the Internet, and other technology as they relate to agri-business.
7. Recognize world markets and describe their effect on local agriculture economics.

MAJOR REQUIREMENTS

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AG 115</td>
<td>Introduction to Agricultural Education &amp; Careers</td>
<td>1</td>
</tr>
<tr>
<td>AG 349A-D</td>
<td>Work Experience (for a total of 4 units)**</td>
<td>4</td>
</tr>
<tr>
<td>AG 249*</td>
<td>Agriculture Internship**</td>
<td>2</td>
</tr>
</tbody>
</table>

**Work experience/internship must be in marketing sales or closely related.

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>AG 200</td>
<td>Introduction to Mechanical Technology</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 200</td>
<td>Introduction to Animal Science</td>
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<tr>
<td>NR 200</td>
<td>Soils</td>
<td>4</td>
</tr>
<tr>
<td>PLSC 200</td>
<td>Introduction to Plant Science</td>
<td>3</td>
</tr>
</tbody>
</table>

III. MAJOR REQUIRED COURSES - COMPLETE 12 UNITS

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AGEC 200</td>
<td>Agricultural Accounting &amp; Analysis</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 210</td>
<td>Elements of Agricultural Economics</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 220</td>
<td>Agricultural Business Management</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 225</td>
<td>Agriculture Computer Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

IV. ELECTIVE COURSES - COMPLETE 4 UNITS

Any 200 series Agriculture course with a laboratory. No more than 1 unit in a 300 level Agriculture class.

TOTAL UNITS IN A.S. MAJOR: 30

**Required
Agricultural Economics Courses (AGEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AGEC 50 — Survey of Agricultural Economics</td>
<td>3</td>
</tr>
<tr>
<td>36 Lecture Hours, 54 Lab Hours</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>AGEC 55 — Preparatory Agriculture Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>36 Lecture Hours, 54 Lab Hours</td>
<td></td>
</tr>
<tr>
<td>Formerly listed as: AGEC - 55: Preparatory Agriculture Computer Applications</td>
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</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>AGEC 200 — Agricultural Accounting and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>54 Lecture Hours</td>
<td></td>
</tr>
<tr>
<td>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)</td>
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<tr>
<td>AGEC 208 — Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>54 Lecture Hours</td>
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<tr>
<td>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)</td>
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<tr>
<td>AGEC 209 — Import/Export Fundamentals</td>
<td>3</td>
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<tr>
<td>54 Lecture Hours</td>
<td></td>
</tr>
<tr>
<td>Also offered as: BUSAD - 209: Import/Export Fundamentals</td>
<td></td>
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<tr>
<td>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)</td>
<td></td>
</tr>
<tr>
<td>AGEC 210 — Elements of Agricultural Economics</td>
<td>3</td>
</tr>
<tr>
<td>54 Lecture Hours</td>
<td></td>
</tr>
<tr>
<td>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: (MUC-GE: B) (CSU-GE: D2) (IGETC-4B)</td>
<td></td>
</tr>
</tbody>
</table>

**Required**

**Internship/Work Experience must be Agriculture related**

Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 349D, or a combination of AG 349A-C, or a combination of AG 249 and AG 349A-B.

* Pending State Chancellor’s Office approval.
**A: AGRICULTURAL ECONOMICS/AGRICULTURAL MECHANICS**

**AGEC 215—AGRICULTURAL MARKETING**
3 UNITS
36 Lecture Hours, 54 Lab Hours
Structure and framework of agricultural marketing, history and present trends; marketing principles, policies, channels, institutions, regulatory agencies, cooperative marketing orders, cyclical and seasonal price variations, integration, and foreign and domestic trade; consideration of specific marketing problems affecting area commodities. Field trips required. Lecture/Lab. (A-F Only)(Spring) 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 workplace, 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: (MUC-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)

**PROGRAM LEARNING OUTCOMES**
Upon satisfactory completion of this award, the student should be prepared to:
1. Describe the various employment opportunities available within the mechanized agriculture field and demonstrate the minimum educational requirements for entrance into each.
2. Locate, read, and interpret appropriate plans, manuals and equipment documentation in order to fabricate and/or repair equipment effectively.
3. Select proper tools and equipment for various applications, staying within the desired financial restraints.
4. Maintain tools and equipment and demonstrate the value of preventative maintenance and proper equipment usage.
5. Demonstrate and relate the use of skills developed across various general education disciplines (e.g., English, math, physics, etc.) to help solve problems within the mechanized agriculture field.

**MAJOR REQUIREMENTS**
To earn an Associate in Science Degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway or the University Preparation Pathway which include completion of the requirements below.

**I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS**
AG 115 * [1] Introduction to Agricultural Education & Careers .................................................................1
AG 249 ** [4] Agriculture Internship ...........................................................................................2 OR
AG 349ABCD [NP] Work Experience Agriculture - Supervised Practice ........................................1-4

**II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS**
PLSC 200 [NP] Introduction to Plant Science .......................................................................................3
ANSC 200 [NP] Introduction to Animal Science ....................................................................................3
NR 200 [NP] Soils .........................................................................................................................................4
AGEC 225 [NP] Agriculture Computer Applications ..................................................................................3 OR
AGEC 270 [NP] Elements of Agricultural Economics ..............................................................................3 OR
AGEC 200 [NP] Agricultural Accounting and Analysis ............................................................................3

**III. AGRICULTURE MAJOR COURSES - COMPLETE 12 UNITS**
AGM 200 [NP] Introduction to Mechanical Technology ........................................................................3 AND
AGM 210 [NP] Agricultural Welding ........................................................................................................3
AGM 262 [NP] Hydraulics/Pneumatics ....................................................................................................3 OR
AGM 280 [NP] Mobile Machinery Hydraulic Systems ............................................................................3

**FABRICATION OPTION**
AGM 251 [NP] Farm Construction and Materials ..................................................................................4 OR

**POWER OPTION**
AGM 215 [NP] Machinery Management ...............................................................................................3 OR
AGM 240 [NP] Truck and Tractor Power Trains .......................................................................................3

**IV. AGRICULTURE ELECTIVE COURSES - COMPLETE 4-5 UNITS**
AGM 211 [NP] Advanced Agricultural Welding ......................................................................................3
AGM 214 [NP] Equipment Service and Safety ........................................................................................1
AGM 225 [NP] Principles of Electrical/Wiring ........................................................................................3
AGM 230 [NP] Field Surveying ................................................................................................................2
AGM 241 [NP] Diesel Engine Principles ..................................................................................................3
AGM 252 [NP] Farm Construction Advanced Lab ....................................................................................2
AGM 289 [NP] Principles of Power Mechanics/Sm Engines ..................................................................3
ANY 200 LEVEL AGRICULTURE COURSE INCLUDING THOSE THAT ARE LISTED, BUT NOT USED, IN AREA II ABOVE.

**TOTAL UNITS .......................................................................................................................... 30 - 31**

*Required
**Internship/Work Experience must be Agriculture Related.
Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 349D, or a combination of AG 349A-C, or a combination of AG 249 and AG 349A-B.
*Pending State Chancellor’s Office approval.

**PROGRAMS AND COURSES**
CERTIFICATE OF ACHIEVEMENT: ADVANCED HEAVY EQUIPMENT TECHNICIAN

In this program, students will develop additional skills and knowledge to enter the diesel mechanics field. Contact the division office in the Agriculture Building for advising assistance.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Describe the various employment opportunities available within the mechanized agriculture field and demonstrate the minimum educational requirements for entrance into each.
2. Locate, read, and interpret appropriate plans, manuals and equipment documentation in order to fabricate and/or repair equipment effectively.
3. Select proper tools and equipment for various applications, staying within the desired financial restraints.
4. Maintain tools and equipment and demonstrate the value of preventative maintenance and proper equipment usage.

CERTIFICATE REQUIREMENTS

To earn a certificate of achievement, the student must complete the following coursework. Each Course must be completed with a grade of C or better.

I. MAJOR REQUIRED COURSES

AGM 215 [NP] Machinery Management .................................................................3
AGM 221 [NP] Equipment Diagnosis and Repair ................................................3
AGM 240 [NP] Truck/Tractor Power Trains ............................................................3
AGM 242 [NP] Diesel Engine Overhaul .................................................................3
AGM 245 [NP] Diesel Engine Fuel Systems and Diagnosis ..................................3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ...................... 15

CERTIFICATE OF ACHIEVEMENT: BASIC HEAVY EQUIPMENT TECHNICIAN

In this program, students will develop additional skills and knowledge to enter the diesel mechanics field. Contact the division office in the Agriculture Building for advising assistance.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Describe the various employment opportunities available within the mechanized agriculture field and demonstrate the minimum educational requirements for entrance into each.
2. Locate, read, and interpret appropriate plans, manuals and equipment documentation in order to fabricate and/or repair equipment effectively.
3. Select proper tools and equipment for various applications, staying within the desired financial restraints.
4. Maintain tools and equipment and demonstrate the value of preventative maintenance and proper equipment usage.

CERTIFICATE REQUIREMENTS

To earn a Certificate of Achievement the student must complete the following coursework. Each Course must be completed with a grade of C or better.

I. MAJOR REQUIRED COURSES

AGM 215 [NP] Machinery Management .................................................................3
AGM 214 [NP] Equipment Service and Safety ....................................................1
AGM 241 [NP] Diesel Engine Principles ...............................................................3
AGM 243 [NP] Heavy Machinery Electrical Systems ..........................................3
AGM 280 [NP] Mobile Machinery Hydraulic Systems ........................................3
AGM 289 [NP] Principles of Power Mechanics/Small Engines .........................3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ...................... 16

CERTIFICATE OF ACHIEVEMENT: HEAVY MACHINERY MANAGEMENT

In this program, students will develop skills and knowledge for the successful management of heavy equipment. Contact the division office in the Agriculture Building for advising assistance.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Describe the various employment opportunities available within the mechanized agriculture field and demonstrate the minimum educational requirements for entrance into each.
2. Locate, read, and interpret appropriate plans, manuals and equipment documentation in order to fabricate and/or repair equipment effectively.
3. Select proper tools and equipment for various applications, staying within the desired financial restraints.
4. Maintain tools and equipment and demonstrate the value of preventative maintenance and proper equipment usage.

CERTIFICATE REQUIREMENTS

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

I. MAJOR REQUIRED COURSES

AGM 200 [NP] Introduction to Mechanical Technology .......................................3
AGM 214 [NP] Equipment Service and Safety ....................................................1
AGM 215 [NP] Machinery Management .............................................................2
AGEC 200 [NP] Agriculture Accounting and Analysis .......................................3
AGEC 220 [NP] Agriculture Business Management ..........................................3
AGEC 225 [NP] Agriculture Computer Applications ........................................3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ...................... 15

CERTIFICATE OF ACHIEVEMENT: MECHANIZED AGRICULTURE TECHNICIAN

In this program, students will develop skills and knowledge to enter the mechanized agriculture field. Contact the division office in the Agriculture Building for advising assistance.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Describe the various employment opportunities available within the mechanized agriculture field and demonstrate the minimum educational requirements for entrance into each.
2. Locate, read, and interpret appropriate plans, manuals and equipment documentation in order to fabricate and/or repair equipment effectively.
3. Select proper tools and equipment for various applications, staying within the desired financial restraints.
4. Maintain tools and equipment and demonstrate the value of preventative maintenance and proper equipment usage.
5. Demonstrate and relate the use of skills developed across various general education disciplines (ex. English, math, physics etc.) to help solve problems within the mechanized agriculture field.

CERTIFICATE REQUIREMENTS

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a C or better.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 115 **</td>
<td>Introduction to Agricultural Education &amp; Careers</td>
<td>1</td>
</tr>
<tr>
<td>AG 249 **</td>
<td>Agriculture Internship</td>
<td>2 OR</td>
</tr>
<tr>
<td>AG 349ABCD</td>
<td>Work Experience Agriculture - Supervised Practice</td>
<td>1 - 4</td>
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</table>

II. REQUIRED COURSES FOR CERTIFICATE - COMPLETE 15 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AGM 200</td>
<td>Introduction to Mechanical Technology</td>
<td>3</td>
</tr>
<tr>
<td>AGM 210 (NP)</td>
<td>Agricultural Welding</td>
<td>3</td>
</tr>
<tr>
<td>AGM 215 (NP)</td>
<td>Machinery Management</td>
<td>3</td>
</tr>
<tr>
<td>AGM 241 (NP)</td>
<td>Diesel Engine Principles</td>
<td>3</td>
</tr>
<tr>
<td>AGM 262 (NP)</td>
<td>Hydraulics/Pneumatics</td>
<td>3</td>
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</tbody>
</table>

III. ELECTIVE COURSES FOR CERTIFICATE - COMPLETE 10 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 280 (NP)</td>
<td>Agricultural Computations</td>
<td>3</td>
</tr>
<tr>
<td>AG 285 (NP)</td>
<td>Agricultural Communications</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 280 (NP)</td>
<td>Agricultural Sales and Service</td>
<td>3</td>
</tr>
<tr>
<td>AGM 211 (NP)</td>
<td>Advanced Agricultural Welding</td>
<td>3</td>
</tr>
<tr>
<td>AGM 214 (NP)</td>
<td>Equipment Service and Safety</td>
<td>1</td>
</tr>
<tr>
<td>AGM 225 (NP)</td>
<td>Principles of Electrical Wiring</td>
<td>3</td>
</tr>
<tr>
<td>AGM 230 (NP)</td>
<td>Field Surveying</td>
<td>2</td>
</tr>
<tr>
<td>AGM 241(NP)</td>
<td>Diesel Engine Principles</td>
<td>3</td>
</tr>
<tr>
<td>AGM 251 (NP)</td>
<td>Farm Construction and Materials</td>
<td>4</td>
</tr>
<tr>
<td>AGM 252 (NP)</td>
<td>Farm Construction Advanced Lab</td>
<td>2</td>
</tr>
<tr>
<td>AGM 289 (NP)</td>
<td>Principles of Power Mechanics/Sm Engines</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS ........................................................................................ 30

*Required

**Internship/Work Experience must be Agriculture related

Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 349D, or a combination of AG 349A-C, or a combination of AG 249 and AG 349A-B.

*Pending State Chancellor’s Office approval.

Agriculture Mechanics Courses (AGM)

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

AGM 200—INTRODUCTION TO MECHANICAL TECHNOLOGY  3 UNITS

36 Lecture Hours, 54 Lab Hours

Also offered as: INTEC - 200: Introduction to Mechanical Technology

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. Field trips might be required. Two completions allowed. (A-F Only) Transfer: (CSU)

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

36 Lecture Hours, 54 Lab Hours

Advanced elements of agriculture mechanical system design and evaluation. Emphasis will be placed on mechanical and electronic data acquisition and evaluation of performance. The use of data logging equipment and computer analysis will be included. Field trips might be required. Two completions allowed. (A-F Only) 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 AGEC 280.

Operation, selection and care of industrial and agricultural machinery common to this area. The calibration, repair, adjustment and hitching of machinery. Principles of power and its transmission as related to machinery. Semester notebook required. Field trips are required. (A-F Only) 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
18 Lecture Hours, 54 Lab Hours
Formerly also listed as ENGR-230: Field Surveying
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AG 280 or satisfactorily complete MATH 70.

Selection, care and checking of tapes, levels, GPS and laser systems. Introduction to total station care and use. Field observations, note taking and office computations; use of surveying instruments and equipment for land measurement and mapping; practice in differential, profile and contour leveling; horizontal angles, traverses, and construction problems used in public lands surveying, legal descriptions and county records. Materials fee required. Field trips are required. (A-F Only) 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 trips are required. (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)

AGM 241—DIESEL ENGINE PRINCIPLES 3 UNITS
27 Lecture Hours, 81 Lab Hours
Also offered as: AUTEC 241: Diesel Engine Principles
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AGM 289 or satisfactorily complete AUTEC 289.

The operation and repair of modern diesel engines. Principles and theories are studied by running, testing, diagnosing, disassembling and reassembling components, systems, and engines. Materials fee required. Field trips are required. (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 210.

Types, costs and characteristics of construction materials; their use in farm equipment, and buildings. Structural requirements, cost factors, safe loads, animal and equipment requirements, operation and labor efficiency, adaptability to the community. Designing and building projects in the shop and group field work. Field trips might be required. (A-F Only) Transfer: (CSU)

AGM 262—HYDRAULICS/PNEUMATICS 3 UNITS
36 Lecture Hours, 54 Lab Hours

Principles and practices of hydraulics/pneumatics as used in industry. Study of the different applications and management of hydraulics/pneumatics systems for efficient and cost effective use. Field trips might be required. (A-F or P/NP) 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)
Agricultural Science PROGRAM

A.S. DEGREE: AGRICULTURAL SCIENCE

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Give specific examples of careers in the general agriculture area and briefly describe the prerequisites for these careers.
2. Describe the basic workforce readiness skills needed to be successful in agriculture careers.
3. Describe the importance of the agriculture industry to the local, state and national economy.

MAJOR REQUIREMENTS

To earn an Associate in Science Degree, the student must complete the requirements detailed in the Career Technical Education Pathway or the University Preparation Pathway which include completion of the requirements below.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>AG 115 *{[1] Introduction to Agricultural Education &amp; Careers}</td>
<td>1</td>
</tr>
<tr>
<td>AG 249 **{[4] Agriculture Internship}</td>
<td>2 OR</td>
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II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

<table>
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<tbody>
<tr>
<td>PLSC 200 (NP) Introduction to Plant Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 200 (NP) Introduction to Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>NR 200 (NP) Soils</td>
<td>4</td>
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<tr>
<td>AGM 200 (NP) Introduction to Mechanical Technology</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 225 (NP) Agriculture Computer Applications</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGEC 210 (NP) Elements of Agricultural Economics</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGEC 200 (NP) Agricultural Accounting and Analysis</td>
<td>3</td>
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</table>

III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>AGM 210 (NP) Agricultural Welding</td>
<td>3</td>
</tr>
<tr>
<td>EHS 280 (NP) Beginning Floral Design</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 201 (NP) Beef Cattle Science</td>
<td>3 OR</td>
</tr>
<tr>
<td>ANSC 202 (NP) Swine Science</td>
<td>3 OR</td>
</tr>
<tr>
<td>ANSC 203 (NP) Sheep Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 230 (NP) Poultry Science</td>
<td>3</td>
</tr>
<tr>
<td>EHS 210 (NP) Introduction to Environmental Horticulture Science</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 230 (NP) Fruit Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 220 (NP) Dairy Industry/Dairy Science</td>
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I. AGRICULTURE MAJOR ELECTIVE COURSES - COMPLETE 7 UNITS

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ANY CLASS NOT USED IN AREA II &amp; III</td>
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</table>

TOTAL UNITS ................................................................. 30

* Required
**Internship/Work Experience must be Agriculture related

Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 349D, or a combination of AG 349A-C, or a combination of AG 249 and AG 349A-B.

*A Pending State Chancellor’s Office approval.

A.A. DEGREE: UNIVERSITY PREPARATION,
EMPHASIS IN AGRICULTURAL SCIENCES

ABOUT THIS EMPHASIS

Agricultural Science emphasis includes disciplines related to the management of soil, water, air, plant and animal resources, particularly pertaining to the agricultural industry. Students can expect to gain a general understanding of science-related topics such as biology, animal science, crop, soil and water science, horticulture, and toxicology, and often humanities-related topics, such as communications, public relations, social services, marketing, education and economics. More advanced topics often cover pests and diseases, plant physiology, animal health and management, soil and water engineering, ranching and agribusiness, and education.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Give specific examples of careers in the general agriculture area and briefly describe the prerequisites for these careers.
2. Describe the basic workforce readiness skills needed to be successful in agriculture careers today.
3. Describe the importance of the agriculture industry to the local, state and national economy.

EMPHASIS REQUIREMENTS

To earn an Associate Degree with this emphasis, the student must complete the requirements detailed in the University Preparation Pathway (p. 97) which include completion of the requirements below. See advisor for selection of courses.

REQUIRED COURSES - TAKE 4 COURSES

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>AGEC 210 (NP) Elements of Agricultural Economics</td>
<td>3</td>
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<tr>
<td>ANSC 200 (NP) Introduction to Animal Science</td>
<td>3</td>
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<tr>
<td>NR 200 (NP) Soils</td>
<td>4</td>
</tr>
<tr>
<td>PLSC 200 (NP) Introduction to Plant Science</td>
<td>3</td>
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ELECTIVE COURSES - TAKE 5 UNITS

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<th>Course</th>
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<tbody>
<tr>
<td>AGEC 200 (NP) Agricultural Accounting and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 225 (NP) Agriculture Computing Applications</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 280 (NP) Agricultural Sales and Service</td>
<td>3</td>
</tr>
<tr>
<td>AGM 200 (NP) Introduction to Mechanical Technology</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGM 215 (NP) Machinery Management</td>
<td>3</td>
</tr>
<tr>
<td>AGM 220 (NP) Industrial/Agricultural Machinery</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGM 230 (NP) Field Surveying</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 201 (NP) Beef Cattle Science</td>
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<td>ANSC 202 (NP) Swine Science</td>
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<td>ANSC 203 (NP) Sheep Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 214 (NP) Livestock Feeding and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 215 (NP) Animal Health and Sanitation</td>
<td>3</td>
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<tr>
<td>ANSC 220 (NP) Dairy Industry/Dairy Science</td>
<td>3</td>
</tr>
<tr>
<td>ECON 101 (NP) Economic Principles: Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>EHS 210 (NP) Introduction to Environmental Horticulture</td>
<td>3</td>
</tr>
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</table>

*Pending State Chancellor’s Office approval.
Agriculture, Vocational & Technical Courses (AG)

For degrees and certificates that can be earned in Agriculture: Vocational & Technical, see the Agriculture and Environmental Sciences Division on page 115.

Vocational Agriculture courses are designed to prepare for occupational entry into skilled or semi-professional fields of agriculture. Technical Agriculture courses are designed to prepare for occupational entry into the technical fields of agriculture.

AG 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). Graduation: (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) MJC 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
Limitations on Enrollment: Enrollment limited to students who receive instructor approval for the purpose of identifying an internship site and outlining learning objectives for the internship.
Designed for agriculture majors who wish to combine classroom experience with 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)
ANAT 285 — AGRICULTURAL COMMUNICATIONS  
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)

ANAT 305 — SUPERVISION IN AGRICULTURE  
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. Lab. May be completed up to four times. (A-F Only)

ANAT 349 A, B, C, D — WORK EXPERIENCE AGRICULTURE — 1, 2, 3, 4 UNITS
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)

ANAT 376 — BASIC SCIENCE AND LABORATORY TECHNIQUES  
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)

ANAT 390X, A, B, C, D — AGRICULTURAL SKILLS TRAINING  
X=27 Lab Hours, A= 54 Lab Hours, B= 108 Lab Hours, C= 162 Lab Hours, D= 216 Lab Hours
Emphasis on developing or upgrading skills of agricultural employees. Field trips are required. Total number of AG 390 A, B, C, D units not to exceed eight total units. Lecture/ Laboratory. (A-F Only)

Anatomy Courses (ANAT)

ANAT 125 — HUMAN ANATOMY  
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. Transfer: (CSU)
MAJOR REQUIREMENTS

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS
AG 115* [1] Introduction to Agricultural Education & Careers ........................................... 1
AG 249 ** [NP] Agriculture Internship .............................................................................. 2
AG 349ABCD [NP] Work Experience Agriculture - Supervised Practice .................. 1 - 4

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS
PLSC 200 [NP] Introduction to Plant Science .................................................................... 3
NR 200 [NP] Soils .............................................................................................................. 4
AGM 200 [NP] Introduction to Mechanical Technology ....................................................... 3
AGEC 225 [NP] Agriculture Computer Applications ............................................................. 3 OR
AGEC 270 [NP] Elements of Agricultural Economics ............................................................... 3 OR
AGEC 200 [NP] Agricultural Accounting and Analysis .......................................................... 3

III. AGRICULTURE MAJOR COURSES - COMPLETE 12 UNITS
ANSC 200 [NP] Introduction to Animal Science ................................................................. 3
ANSC 201 [NP] Beef Cattle Science .................................................................................... 3
ANSC 202 [NP] Swine Science ............................................................................................ 3
ANSC 203 [NP] Sheep Science ............................................................................................ 3
ANSC 207 [NP] Equine Science .......................................................................................... 3
ANSC 210 [NP] Livestock Selection & Evaluation ................................................................. 3
ANSC 211 [NP] Introduction to Meat Science ....................................................................... 3
ANSC 214 [NP] Livestock Feeding and Nutrition ................................................................. 3
ANSC 215 [NP] Animal Health and Sanitation .................................................................... 3

IV. ELECTIVE COURSES - COMPLETE 4 UNITS
Any 200 level Animal Science class not listed above
Any Agriculture class not used in Area II. for breadth core
Any Animal Science class not used in Area III. for major core
No more than two units of 300 level Agriculture classes

TOTAL UNITS ................................................................. 30

**Required
***Internship/Work Experience must be agriculture related.
Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 349D, or a combination of AG 249 and AG 349A-B.
* Required
**Pending State Chancellor’s Office approval.

A.S. DEGREE: DAIRY SCIENCE

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:.............
1. Give specific examples of careers in the Animal Agriculture industry and briefly describe the prerequisites for these careers.
2. Describe basic management techniques used by the Animal Science industry to produce wholesome, safe, environmentally responsible animal products.
3. Utilize a variety of technologies to gain information about the Animal Agriculture industry and apply these technologies in the analysis of specific situations.
4. Describe the economic significance of a specific area studied in animal science and explain the social/cultural benefits provided by that industry.

MAJOR REQUIREMENTS

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway or the University Preparation Pathway which include completion of the requirements below.
I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

AG 115 * [1] Introduction to Agricultural Education & Careers ........................................ 1
AG 249 ** [4] Agriculture Internship ............................................................................. 2 OR
AG 349ABCD [NP] Work Experience Agriculture - Supervised Practice ......................... 1 - 4

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

PLSC 200 [NP] Introduction to Plant Science ................................................................ 3
ANSC 200 [NP] Introduction to Animal Science ............................................................... 3
NR 200 [NP] Soils ............................................................................................................ 4
AGM 200 [NP] Introduction to Mechanical Technology .................................................. 3 OR
AGEC 225 [NP] Agriculture Computer Applications ....................................................... 3 OR
AGEC 270 [NP] Elements of Agricultural Economics ..................................................... 3 OR
AGEC 200 [NP] Agricultural Accounting and Analysis .................................................... 3

III. AGRICULTURE MAJOR COURSES - COMPLETE 12 UNITS

ANSC 230 [NP] Poultry Science .................................................................................... 3
ANSC 214 [NP] Livestock Feeding and Nutrition ............................................................... 3 OR
ANSC 234 [NP] Poultry Feeding ..................................................................................... 3
ANSC 235 [NP] Poultry Diseases and Housing ................................................................. 3 OR
ANSC 215 [NP] Animal Health and Sanitation ................................................................ 3
AGEC 220 [NP] Agricultural Business Management ....................................................... 3
ANSC 232 [NP] Avian Practices ..................................................................................... 3
ANSC 236 [NP] Poultry Breeding & Selection ................................................................ 3

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 4 UNITS

ANY 200 LEVEL ANIMAL SCIENCE CLASS THAT IS NOT LISTED ABOVE
ANY 200 LEVEL AGRICULTURE ECONOMICS CLASS NOT LISTED ABOVE
ANY AGRICULTURE CLASS NOT USED IN AREA II. FOR BREADTH CORE
NO MORE THAN TWO UNITS OF 300 LEVEL AGRICULTURE CLASSES

TOTAL UNITS .................................................................................................................. 30

*Required
**Internship/Work Experience must be Agriculture related
Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 349D, or a combination of AG 349A-C, or a combination of AG 249 and AG 349A-B.
*Pending State Chancellor's Office approval.

CERTIFICATE REQUIREMENTS

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

AG 115 * [1] Introduction to Agricultural Education & Careers ........................................ 1
AG 249 ** [2] Agriculture Internship ............................................................................. 2 OR
AG 349ABCD [NP] Work Experience Agriculture - Supervised Practice ......................... 1 - 4

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

AG 376 [NP] Basic Science and Laboratory Techniques .................................................. 3
AGEC 200 [NP] Agricultural Accounting and Analysis ..................................................... 3
AGEC 280 [NP] Agricultural Sales and Service ................................................................ 3

III. MAJOR REQUIRED COURSES - COMPLETE 13 UNITS

ANSC 201 [NP] Beef Cattle Science .............................................................................. 3
ANSC 220 [NP] Dairy Industry/Dairy Science ................................................................. 3
ANSC 217 [NP] Advanced Breeding & Artificial Insemination ....................................... 4
ANSC 226 [NP] Dairy Breeding & Selection .................................................................. 3 OR
ANSC 216 [NP] Livestock Breeding and Selection ......................................................... 3

IV. ELECTIVE COURSES - COMPLETE 3 UNITS

ANSC 224 [NP] Dairy Feeds & Feeding ....................................................................... 3 OR
ANSC 214 [NP] Livestock Feeding and Nutrition ............................................................. 3

TOTAL UNITS .................................................................................................................. 30

*Required
**Internship/Work Experience must be Agriculture related
Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 349D, or a combination of AG 349A-C, or a combination of AG 249 and AG 349A-B.

CERTIFICATE OF ACHIEVEMENT: VETERINARY TECHNICIAN

In this program, the student will develop skills and knowledge for entry level employment in the field of veterinary technology. This field may include small and exotic animal care, veterinary laboratory procedures and surgical techniques as well as x-ray technology, specialty animals, large animals and veterinary office procedures. This program will also assist the student in qualification for the California Registered Veterinary Technician Examination by providing the educational requirements mandated by the Veterinary Medical Board.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Give specific examples of careers in the Animal Agriculture industry and briefly describe the prerequisites for these careers.
2. Describe basic management techniques used by the Animal Science industry to produce wholesome, safe, environmentally responsible animal products.
3. Utilize a variety of technologies to gain information about the Animal Agriculture industry and apply these technologies in the analysis of specific situations.
4. Describe the economic significance of a specific area studied in animal science and explain the social/cultural benefits provided by that industry.

CERTIFICATE REQUIREMENTS

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.
### Animal Science Courses (ANSC)

#### REQUIRED COURSES – COMPLETE 17 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 200</td>
<td>Animal Physiology, Anatomy, and Terminology</td>
<td>3</td>
<td>54</td>
</tr>
<tr>
<td>ANSC 252</td>
<td>Veterinary Laboratory Procedures</td>
<td>1</td>
<td>54</td>
</tr>
<tr>
<td>ANSC 254</td>
<td>Veterinary Medical Office Procedures</td>
<td>1</td>
<td>54</td>
</tr>
<tr>
<td>ANSC 255</td>
<td>Preparation for Surgical and Dental Assistance</td>
<td>1</td>
<td>54</td>
</tr>
<tr>
<td>ANSC 256</td>
<td>Veterinary Assistance and Nursing: Emergency Procedures</td>
<td>1</td>
<td>54</td>
</tr>
<tr>
<td>ANSC 257</td>
<td>Veterinary Assistance &amp; Nursing: Animal Handling</td>
<td>2</td>
<td>54</td>
</tr>
</tbody>
</table>

#### ELECTIVE COURSES – (NOT REQUIRED FOR CERTIFICATE)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 111</td>
<td>General Biology</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ANSC 200</td>
<td>Intro to Animal Science (Large animal oriented)</td>
<td>3</td>
<td>54</td>
</tr>
<tr>
<td>ANSC 215</td>
<td>Animal Health &amp; Sanitation (Large animal oriented)</td>
<td>3</td>
<td>54</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD** ....................... 17

*NOTE: To become a registered veterinary technician, students must meet specific requirements established by the AVMA (American Veterinary Medical Association). Please contact the MJC Agriculture Division office for advising.

### 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 204 — 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 207 — EQUINE 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 208 — ADVANCED LIVESTOCK SELECTION AND CARCASS EVALUATION 3 UNITS

**18 Lecture Hours, 108 Lab Hours**

An advanced course in livestock selection and carcass evaluation. Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ANSC 210 and ANSC 211. 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. Field trips are required. Two completions allowed. **Transfer: (CSU, UC)**

### Transfer Requirements

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

ANSC 217—ADVANCED BREEDING & ARTIFICIAL INSEMINATION 4 UNITS
54 Lecture Hours, 54 Lab Hours
Formerly listed as: ANSC 217: Advanced Breeding & Artificial Insemination
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ANSC 201 and satisfactorily complete ANSC 220 and satisfactorily complete ANSC 216 or satisfactorily complete ANSC 226.

Advanced study and practical application of breeding principles and artificial insemination of farm animals; the collection, evaluation, and handling of semen. Nutritional level and sanitation practices affecting reproductive efficiency. Public relations and responsibilities of the technician and the management. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU, UC)

ANSC 220—DAIRY INDUSTRY/DAIRY SCIENCE 3 UNITS
36 Lecture Hours, 54 Lab Hours
History, development, and projections of the dairy industry. General information on the economics of dairying, facts, trends, selection, culling, fitting, showing, judging, pedigrees, feeding, and basic management skills; employment opportunities and requirements. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU, UC)

ANSC 221—DAIRY CATTLE SELECTION & EVALUATION 3 UNITS
18 Lecture Hours, 108 Lab Hours
Selection of dairy cattle on type conformation and the correlation between type and production. Pedigree evaluation, animal analysis, linear classification, and body condition scoring. Written and oral evaluation on selection. Two completions allowed. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU, UC)

ANSC 222—MILK PRODUCTION & TECHNOLOGY 3 UNITS
36 Lecture Hours, 54 Lab Hours
Milk and milk product consumption and the economics of milk production. The mammary system anatomy, the physiology of milk secretion, the composition and the properties of milk including factors of production. Evaluation of milking parlors and equipment, systems analysis, and operation is also included. Milk testing, sanitation, quality control, udder health, and treatment as well as dairy mathematics. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU, UC)

ANSC 224—DAIRY FEEDS & FEEDING 3 UNITS
36 Lecture Hours, 54 Lab Hours
Fundamentals of nutrient digestion and absorption in ruminants. The nutritive value of feeds as they relate to the formulation of dairy rations will be emphasized with the inclusion of various plant tissue commodities by-product feeding. Term project and field laboratories required. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU)

ANSC 226—DAIRY BREEDING & SELECTION 3 UNITS
36 Lecture Hours, 54 Lab Hours
The study of basic genetic principles with the study of the anatomical and physiological aspects of reproduction as they relate primarily to the bovine. Genetic principles to be emphasized include basic inheritance, selection techniques, mating systems, heterosis, and performance evaluation. Reproductive aspects to include endocrinology, estrous cycles, mating behaviors, gametogenesis, conception, gestation, parturition, and maternal behaviors. Artificial insemination, embryo manipulation, and current innovations in reproductive biotechnology will also be examined. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU)

ANSC 227—ADVANCED DAIRY CATTLE SELECTION & EVALUATION 3 UNITS
36 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have completed the ANSC 220, ANSC 221 and/or completed another class in livestock evaluation.

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

ANSC 228—DAIRY MANAGEMENT 3 UNITS
36 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ANSC 220 and satisfactorily complete ANSC 224 and satisfactorily complete AGEC 200.

Economics of dairying; milk production and marketing and their relationship to income; computing production costs; analyzing dairy enterprises; business planning; farm selection; management problems relating to feeding, labor, replacements, cow comfort, breeding, work simplification and record keeping. Term problem and field laboratories required. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU)

ANSC 230—POULTRY SCIENCE 3 UNITS
36 Lecture Hours, 54 Lab Hours
A study of the principles and practices of commercial poultry production. Emphasis to be placed on poultry nutrition, reproduction, environmental management, health, marketing and recordkeeping to ensure scientifically-based management decisions and consumer product acceptance. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU)

ANSC 232—AVIAN PRACTICES 3 UNITS
36 Lecture Hours, 54 Lab Hours
Practices in avian management including breeders, fryers and layers; incubating, brooding, and rearing of chicks; feed preparation; 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)
ANSC 235—POULTRY DISEASES AND HOUSING  3 UNITS
36 Lecture Hours, 54 Lab Hours
Principles of selection, feeding, fitting, and presentation of poultry animals for show. Field trips may be required. (A-F Only) Lecture/Lab. Transfer: (CSU)

ANSC 236—POULTRY BREEDING & SELECTION  3 UNITS
36 Lecture Hours, 54 Lab Hours
Principles of breeding, reproduction and selection of poultry. Examination of poultry breeds and their uses. Embryology, egg incubation, hatching and grading. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU)

ANSC 240—BEEF FITTING AND SHOWING  2 UNITS
27 Lecture Hours, 27 Lab Hours
Principles of selection, feeding, fitting, and presentation of beef animals for show. Field trips are required. Four completions allowed. (A-F Only) Transfer: (CSU)

ANSC 241—SHEEP FITTING AND SHOWING  2 UNITS
27 Lecture Hours, 27 Lab Hours
Principles of selection, feeding, fitting, and presentation of sheep animals for show. Field trips are required. Four completions allowed. (A-F Only) Transfer: (CSU)

ANSC 242—SWINE FITTING AND SHOWING  2 UNITS
27 Lecture Hours, 27 Lab Hours
Principles of selection, feeding, fitting, and presentation of swine animals for show. Field trips are required. Lecture/Laboratory. (A-F Only) Transfer: (CSU)

ANSC 243—EQUINE FITTING AND SHOWING  2 UNITS
27 Lecture Hours, 27 Lab Hours
Formerly titled as 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)
A.A.-T DEGREE: ANTHROPOLOGY

ANTHROPOS 101 [NP] Biological Anthropology ......................................................... 3
ANTHROPOS 102 [NP] Cultural Anthropology .............................................................. 3
ANTHROPOS 130 [NP] Archaeology and Cultural Prehistory ........................................ 3
LIST A: (3 UNITS)
ANTHROPOS 104 [NP] Linguistic Anthropology ......................................................... 3
ANTHROPOS 105 [NP] Biological Anthropology Lab .................................................... 1
MATH 134 [NP] Elementary Statistics ........................................................................ 5
LIST B: SELECT ONE TO TWO (3-5 UNITS)
PSYCH 102 [NP] Research Methods .......................................................................... 3
PHILO 107 [NP] Philosophy of Science .................................................................... 3
ANAT 125 [NP] Human Anatomy .............................................................................. 5
GEOL 161 [NP] Physical Geology .............................................................................. 4
EASCI 161 [NP] Earth Science ................................................................................. 4

ABOUT THIS AWARD

The Associate in Arts in Anthropology for Transfer degree includes lower division coursework that is required for transfer. Anthropology examines the broad conditions and experiences of becoming and being human through a myriad of lenses: genetics and evolution, comparative primate anatomy and behavior, the bioarchaeological record, language forms, and culture. The Associate in Arts in Anthropology for Transfer degree will provide foundational training for students in anthropological concepts, methods of inquiry, and theories of human variation, change and adaptation. All academic subfields of anthropology are emphasized at MJC, including biological anthropology, cultural anthropology, linguistic anthropology and archaeology. Students will learn how to utilize and apply anthropology and its scientific and humanistic modalities. Across broad coursework, students will discover the uniqueness of being biologically human and engage the role of culture and language in the histories and politics of an interconnected, global world.

The Associate in Arts in Anthropology for Transfer degree is intended for students who plan to complete a bachelor's degree in Anthropology at a California State University campus. Students completing this degree are guaranteed admission to the CSU System, but not to a particular campus or Anthropology. Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

THE FOLLOWING IS REQUIRED FOR THE AA DEGREE IN ANTHROPOLOGY FOR TRANSFER:

1. A minimum of 18 semester units or 27 quarter units in the major with a grade of C or better while maintaining a minimum grade point average (GPA) of at least 2.0 in all CSU transferable coursework.
2. Completion of 60 semester or 90 quarter CSU-transferable units using the CSU-GE Breadth or the IGETC pattern.
3. Exactly 60 semester units or 90 quarter units are required for the degree.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Describe the basic concepts, methods of inquiry, and the theories of biological, cultural, linguistic and archaeological anthropology.
2. Explain how the scientific method serves as a foundation for understanding the observed variation, change and adaptation of humans and their environments.
3. Use anthropological perspectives to interpret evolutionary, historical and contemporary issues.

REQUIRED CORE: (9 UNITS)

Annie's College Bookstore

ANTHROPOS 101 [NP] Biological Anthropology ......................................................... 3
ANTHROPOS 102 [NP] Cultural Anthropology .............................................................. 3
ANTHROPOS 130 [NP] Archaeology and Cultural Prehistory ........................................ 3

LIST A: (3 UNITS)
ANTHROPOS 104 [NP] Linguistic Anthropology ......................................................... 3
ANTHROPOS 105 [NP] Biological Anthropology Lab .................................................... 1
MATH 134 [NP] Elementary Statistics ........................................................................ 5

LIST B: SELECT ONE TO TWO (3-5 UNITS)
PSYCH 102 [NP] Research Methods .......................................................................... 3
PHILO 107 [NP] Philosophy of Science .................................................................... 3
ANAT 125 [NP] Human Anatomy .............................................................................. 5
GEOL 161 [NP] Physical Geology .............................................................................. 4
EASCI 161 [NP] Earth Science ................................................................................. 4
A: ANTHROPOLOGY

ANTHR 101—BIOLOGICAL ANTHROPOLOGY 3 UNITS
54 Lecture Hours
Formerly listed as: ANTHR 101: Physical Anthropology
Introduction to human evolution. The evidence for human biological and behavioral adaptations is examined. Issues and topics will include the principles of genetics and evolution, human variation, comparative primate anatomy/behavior and an assessment of the human fossil record. Field trips may be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: A) (CSU-GE: B2, D1) (IGETC 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) General Education: (MJC-GE: B) (CSU-GE: B2, D1) (IGETC 5B)

ANTHR 104—LINGUISTIC ANTHROPOLOGY 3 UNITS
54 Lecture Hours
Formerly listed as: ANTHR 104: Language, Culture and Communication
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Linguistic anthropology examines the relationship between language and the human condition. This course introduces the methods, theories and insights of linguistic anthropology, addressing questions of how, what, when, where, why and with whom we communicate. Three main areas of linguistic anthropology are examined: structural linguistics, including phonology, morphology, the study of syntax and the biocultural basis of language; historical linguistics, including language origins and evolution, language families and dialects, and language change; and, sociolinguistics, including the relationship between culture and language, language use in social contexts, 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) (CSU-GE: C2, D1) (IGETC: 3B, 4A)

ANTHR 105—BIOLOGICAL ANTHROPOLOGY LABORATORY 1 UNIT
54 Lab Hours
Formerly listed as: ANTHR 105: Physical Anthropology Laboratory
Corequisite: Concurrent enrollment in or satisfactory completion of ANTHR 101.
This laboratory course is offered as a supplement to Introduction to Biological Anthropology either taken concurrently or in a subsequent term. Students will apply laboratory exercises using the scientific method to examine processes of human evolution and variation. Lines of evidence will include the study of genetics, comparative anatomy and behavior of primates, forensic anthropology, human fossils and their reconstruction. Field trips might be required. (A-F Only) 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) 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 religions 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) 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
ANTHR 192—ANTHROPOLOGY OF THE PACIFIC NORTHWEST 3 UNITS
54.00 Disc Hours
Application of principles of anthropology through extended field studies in the Pacific
Northwest cultural areas of the United States and Canada. Skills developed in cultural
field studies, ethnographic data collection, archaeological artifact and site identification.
Requires ability to work and study in rigorous conditions. Field trips are required. Field
trips are required. (A-F or P/NP) Transfer: (CSU)

A.A.-T DEGREE: ART HISTORY

The Associate in Arts in Art History for Transfer degree is intended for students who
plan to complete a bachelor's degree in Art History or other related subjects (Humanities,
History, Philosophy, Interdisciplinary Studies etc.) at a CSU campus. Coursework will
provide students with the study and critical analysis of great works of human expression
and imagination will allow students to identify the role of the visual arts in traditional
and contemporary culture, and further prepare them for the meaningful interpretation
of artworks.

The Associate in Arts in Art History for Transfer is intended for students who plan to
complete a bachelor's degree in Studio Arts at a CSU campus. Students completing this
degree are guaranteed admission to the CSU system, but not to a particular campus
or major. Students transferring to a CSU campus that does accept this degree will be
required to complete no more than 60 units after transfer to earn a bachelor's degree.
This degree may not be the best option for students intending to transfer to a particular
major. Students transferring to a CSU campus that does accept this degree will be
required to complete no more than 60 units after transfer to earn a bachelor's degree.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Demonstrate preparedness to successfully continue studies in Art History or a related
   subject at an upper-division level.
2. Learn the major monuments and masterpieces of the great art periods from the
   prehistoric to the Modern era discern how man expresses himself through these works.
3. Demonstrate and understanding of the chronology of art developments and the
   vocabulary terms employed in the discussion of these developments.
4. Evaluate the basic qualities of an artwork, i.e. style, composition, color, technique, and
   medium.
5. Evaluate original works of art by visiting significant art museums in the San Francisco
   Bay Area or elsewhere.
6. Reproduce, render, and interpret ideas in a variety of media through participation in
   studio arts classes.

THE FOLLOWING IS REQUIRED FOR THE ASSOCIATE IN ARTS IN ART HISTORY
FOR TRANSFER DEGREE:

(1) Completion of 60 semester units or 90 quarter units that are eligible for transfer to the
   California State University, including both of the following:
   (A) The Intersegmental General Education Transfer Curriculum (IGETC) or the
       California State University General Education — Breadth Requirements.
   (B) A minimum of 18 semester units or 27 quarter units in a major or area of
       emphasis, as determined by the community college district.

(2) Obtainment of a minimum grade point average of 2.0. All courses within the major
    must be completed with a C or better. A "P" (Pass) grade is not an acceptable grade for
courses in the major.

REQUIRED CORE: (COMPLETE 9 UNITS)
ART 120 [1] Basic Drawing 1 .................................................................3
ART 164 [1] History of Art 1 .................................................................3
ART 165 [2] History of Art 2 .................................................................3

LIST A: (3 UNITS)
ART 169 (NP) Survey of Asian Art ......................................................3

LIST B: (SELECT ONE: 3 UNITS)
ART 102 [NP] Introduction to Computer Graphics .................................3
ART 108 [NP] Ceramics 1 .................................................................3
ART 123 [NP] Figure Drawing .............................................................3
ART 124 [NP] Color and 2-D Foundation Design .................................3
ART 125 [NP] Color and 3-D Foundation Design .................................3
ART 140 [NP] Sculpture 1 .................................................................3
ART 147 [NP] Painting 1 (in Acrylic) ......................................................3
ART 148 [NP] Painting 1 (in Oil) ..........................................................3
ART 170 [NP] Basic Photography 1 ......................................................3
ART 173 [NP] Digital Imaging For Photographers .................................3

LIST C: (SELECT ONE: 3-5 UNITS)
ART 162 [NP] History of Renaissance Art ...........................................3 OR
ART 163 [NP] History of Modern Art ....................................................3 OR
ART 168 [NP] Survey of Photography ..................................................3
FREN 101 [NP] French 1 .................................................................5
GERM 101 [NP] German 1 ...............................................................5
ITAL 101 [NP] Italian 1 .................................................................5
SPAN 101 [NP] Spanish 1 ...............................................................5

TOTAL UNITS REQUIRED IN A.A.-T MAJOR ...........................................18-20
TOTAL UNITS THAT MAY BE DOUBLE-COUNTED ..................................6-9
UNITS REQUIRED FOR IGETC/CSU-GE BREADTH ........................37-39
CSU TRANSFERABLE ELECTIVES (AS NEEDED) ........................................9-12
TOTAL UNITS REQUIRED FOR A.A.-T DEGREE .............................60

*Note: Double counting courses in GE and the major is permissible. Guidance and Activities
requirements are not required for the Associate in Arts in Art History for Transfer degree
(A.A.-T in Art History) degree.

* Pending State Chancellor's Office approval.

A.A.-T DEGREE: STUDIO ARTS

ABOUT THIS AWARD

The Associate in Arts in Studio Arts for Transfer degree focuses on the theory and practice
of visual arts skills based on a foundation of both traditional and contemporary practices,
with curriculum geared toward transfer to a CSU. This program will provide students
with an alignment of courses required for transfer and a cohesive group of courses in

PROGRAMS AND COURSES

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the area of Studio Arts. Coursework will provide students with a variety of two- and three-dimensional media in which to develop their capacity to solve problems in new and creative ways. The study and critical analysis of great works of human expression and imagination will allow students to identify the role of the visual arts in traditional and contemporary culture, and further prepare them for meaningful participation in society as visual artists.

The Associate in Arts in Studio Arts for Transfer degree is intended for students who plan to complete a bachelor's degree in Studio Arts at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

THE FOLLOWING IS REQUIRED FOR THE AA DEGREE IN STUDIO ARTS FOR TRANSFER:

1. A minimum of 18 semester units or 27 quarter units in the major with a grade of C or better while maintaining a minimum grade point average (GPA) of at least 2.0 in all CSU transferable coursework.
2. Completion of 60 semester or 90 quarter units of CSU transferable coursework.
3. Exactly 60 semester units or 90 quarter units are required for the degree.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate preparedness to successfully continue studies in Studio Art at an upper-division level.
2. Reproduce, render, and interpret ideas in a variety of media through observation.
3. Plan, design, and produce original works of art.
4. Make informed assessments of quality and effectiveness in works of art, including their own.
5. Identify and distinguish various historical periods of art.

REQUIRED CORE: (12 UNITS)

ART 120 [1] Basic Drawing 1 ................................................................. 3
ART 124 [1] Color and 2D Foundation Design ............................................. 3
ART 125 [2] Color and 3D Foundation Design ............................................. 3
ART 165 (2) History of Art 2 ................................................................. 3

LIST A: (3 UNITS)

ART 121 (NP) History of Modern Art ............................................................. 3
ART 124 (NP) History of Art 1 ................................................................. 3
ART 149 (NP) Survey of Asian Art ............................................................. 3

LIST B: (9 UNITS)

ART 140 [1] Sculpture 1 ................................................................. 3
ART 147 (NP) Painting 1 (in Oil) .............................................................. 3
ART 148 (NP) Painting 1 (in Acrylic) .......................................................... 3
ART 150 [1] Ceramics 1 ................................................................. 3
ART 162 [NP] History of Renaissance Art ................................................... 3
ART 164 (NP) History of Art 2 ................................................................. 3

LIST C: (3 UNITS)

ART 112 (NP) Introduction to Computer Graphics ........................................ 3
ART 147 (NP) History of Art 1 ................................................................. 3
ART 149 (NP) Survey of Asian Art ............................................................. 3

TOTAL UNITS REQUIRED IN A.A.-T MAJOR ........................................ 24

TOTAL UNITS THAT MAY BE DOUBLE-COUNTED ........................................ 6

UNITS REQUIRED FOR CSU-GE BREADTH ........................................... 39 OR

UNITS REQUIRED FOR IGETC/CSU BREADTH ........................................... 37-39

CSU TRANSFERABLE ELECTIVES (AS NEEDED) ........................................ 3-5

TOTAL UNITS REQUIRED FOR A.A.-T DEGREE ...................................... 60

*Note: Double counting courses in GE and the major is permissible. MJC Guidance and Activities requirements are not required for this degree.

* Pending State Chancellor's Office approval.

A.A. DEGREE: ART

The comprehensive MJC Art Program offers several areas of concentration: art history, ceramics, computer graphics, drawing, design, sculpture, water color painting, oil painting, museum studies, and photography. The program is designed to include pre-professional and professional courses, personal enrichment in specific art areas, and classes for students who plan an art-related career. Art courses help students develop a capacity for visual analysis and the ability to solve problems in new and creative ways.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate preparedness to successfully continue studies in art at an upper division level.
2. Reproduce, render, and interpret ideas in a variety of media through observation.
3. Plan, design, and produce original works of art.
4. Make informed assessments of quality and effectiveness in works of art, including their own.
5. Identify and distinguish various historical periods of art.

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below. Students who plan to transfer to a four-year college or university should consult with an Art faculty advisor and a counselor to ensure that all required transfer courses are completed.

REQUIRED COURSES - COMPLETE 9 UNITS

ART 120 [1] Basic Drawing 1 ................................................................. 3
ART 124 [2] Color and Design 1 ................................................................. 3
ART 164 (NP) History of Art 1 ................................................................. 3
ART 165 (NP) History of Art 2 ................................................................. 3

ELECTIVE COURSES - COMPLETE 11 UNITS, WITH NO MORE THAN 1 COURSE IN EACH AREA

DESIGN AND DRAWING AREA

ART 121 (2) Basic Drawing 2 ................................................................. 3
ART 123 (2) Figure Drawing ................................................................. 3
ART 125 (3) Color and Design 2 ................................................................. 3

THREE-DIMENSIONAL AREA

ART 108 [1] Ceramics 1 ................................................................. 3
ART 140 [1] Sculpture 1 ................................................................. 3

PAINTING AND PRINTMAKING AREA

ART 147 (3) Painting 1 (in Acrylic) .............................................................. 3
ART 148 (2) Painting 1 (in Oil) ................................................................. 3

ART HISTORY AND APPRECIATION AREA

ART 150 [1] Gallery Operation and Management ........................................ 3
ART 162 (NP) History of Renaissance Art ................................................... 3
ART 163 (NP) History of Modern Art .......................................................... 3
ART 164 (NP) History of Art 1 ................................................................. 3
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 102</td>
<td>Introduction to Computer Graphics</td>
<td>3</td>
<td>36 Lecture Hours, 54 Lab Hours</td>
</tr>
<tr>
<td></td>
<td>Also offered as: CMPGR 202: Introduction to Computer Graphics</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Introduction to computer graphics using various applications and tools. Topics explored include but are not limited to: original image creation, photographic 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)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 103</td>
<td>Applied Computer Graphics</td>
<td>3</td>
<td>36 Lecture Hours, 54 Lab Hours</td>
</tr>
<tr>
<td></td>
<td>Also offered as: CMPGR 202</td>
<td></td>
<td>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)</td>
</tr>
<tr>
<td>ART 108</td>
<td>Ceramics 1</td>
<td>3</td>
<td>27 Lecture Hours, 81 Lab Hours</td>
</tr>
<tr>
<td></td>
<td>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) Graduation: (MJC: Activities)</td>
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</tr>
<tr>
<td>ART 109</td>
<td>Ceramics 2</td>
<td>3</td>
<td>27 Lecture Hours, 81 Lab Hours</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: satisfactory completion of ART 108.</td>
<td></td>
<td>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)</td>
</tr>
<tr>
<td>ART 110</td>
<td>Ceramics 3</td>
<td>3</td>
<td>27 Lecture Hours, 81 Lab Hours</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: satisfactory completion of ART 109.</td>
<td></td>
<td>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)</td>
</tr>
<tr>
<td>ART 119</td>
<td>Computer Graphics Portfolio Review</td>
<td>1</td>
<td>18 Lecture Hours</td>
</tr>
<tr>
<td></td>
<td>Also offered as: CMPGR 219</td>
<td></td>
<td>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)</td>
</tr>
<tr>
<td>ART 120</td>
<td>Basic Drawing</td>
<td>3</td>
<td>27 Lecture Hours, 81 Lab Hours</td>
</tr>
<tr>
<td></td>
<td>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, UC) General Education: (MJC-GE: C) (CSU-GE: C1)(CID-ARTS 110)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 121</td>
<td>Basic Drawing 2</td>
<td>3</td>
<td>27 Lecture Hours, 81 Lab Hours</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: satisfactory completion of ART 120.</td>
<td></td>
<td>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) (CID-ARTS 205)</td>
</tr>
<tr>
<td>ART 123</td>
<td>Figure Drawing</td>
<td>3</td>
<td>27 Lecture Hours, 81 Lab Hours</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: satisfactory completion of ART 120.</td>
<td></td>
<td>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)(CID-ARTS 200)</td>
</tr>
<tr>
<td>ART 124</td>
<td>Color and 2-D Foundation Design</td>
<td>3</td>
<td>27 Lecture Hours, 81 Lab Hours</td>
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<tr>
<td></td>
<td>Formerly listed as: ART 124: Color and Design 1</td>
<td></td>
<td>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) (CID-ARTS 100)</td>
</tr>
<tr>
<td>ART 125</td>
<td>Color and 3-D Foundation Design</td>
<td>3</td>
<td>27 Lecture Hours, 81 Lab Hours</td>
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<tr>
<td></td>
<td>Formerly listed as: ART 125: Color and Design 2</td>
<td></td>
<td>Prerequisite: satisfactory completion of ART 124. Introduction to the concepts and applications related to three-dimensional design and spacial composition, including the study of the elements and organizing principles of design as they apply to three dimensional space and form. Development of a visual vocabulary for creative expression through lecture presentations and use of appropriate materials for non-representational three-dimensional studio projects. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC:Activities)(CID-ARTS 101)</td>
</tr>
</tbody>
</table>
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 may 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. Field trips may be required. (A-F or P/NP) Lecture/Lab. Graduation: (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. Field trips may be required. (A-F or P/NP) Lecture/Lab. Graduation: (MJC: Activities). Transfer: (CSU, UC)

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. Graduation: (MJC: Activities). Transfer: (CSU, UC) (CID- ARTS 210)

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. Graduation: (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. Graduation: (MJC: Activities). Transfer: (CSU, UC) (CC ART 21B)

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) Graduation: (MJC: Activities)

ART 159—MURAL PAINTING  3 UNITS
27 Lecture Hours, 81 Lab Hours
Formerly listed as: ART 159: Painting 4
Prerequisite: Satisfactory completion of ART 147 or ART 148.
Creation of murals on campus within the context of the community; researching different historical examples and approaches to mural making. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE:C) (CSU-GE: C1) (IGETC: 3A)

ART 160—APPRECIATION OF ART  3 UNITS
54 Lecture Hours
Introductory art appreciation for the general student. Illustrated lectures cover the theory, terminology, themes, design principles, media techniques, with an introduction to the visual arts across time and diverse cultures. Field trips might be required. (A-F or P/NP) 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 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 prehistoric 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
54 Lecture Hours
Formerly listed as: ART 168: Survey of Photography
Recommened 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
45 Lecture Hours
Formerly listed as: ART 169: History of Non-Western Art

An introduction to the art and architecture of India, China, Korea, Japan, Southeast, Central and Western Asia. Analysis of secular and religious trends in art from the Neolithic period to present. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC)(CID-ARTH 130) (CC ART 13)(CID-ARTH 130) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

**ART 170—BASIC PHOTOGRAPHY** 3 UNITS
27 Lecture Hours, 81 Lab Hours

Introduction to the 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 171—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 or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C)(CSU-GE: C1)

**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) General Education: (MJC-GE: A)(CSU-GE: B3) (IGETC: SC)

**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** 1.5 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** 1.5 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 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)

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**Astronomy Courses (ASTRO)**

**ASTRO 151—INTRODUCTION TO ASTRONOMY LAB** 1 UNIT
54 Lab Hours
Corequisite: Concurrent enrollment in or satisfactory completion of ASTRO 160.

Techniques in experimental astronomy. Determination of the properties of the Sun and solar system objects, stars and galaxies. Use of college telescopes and instruments may be incorporated into the experiments. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: A)(CSU-GE: B3) (IGETC: SC)

**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)
The Athletic Training/Sports Medicine program at MJC is designed to prepare students for appropriate procedures in prevention, care, and rehabilitation of athletic injuries. This degree is also designed to transfer students to four-year institutions where they can continue their education to fulfill the requirements of the National Athletic Trainer’s Association. This will lead to the student’s eventual eligibility to challenge the national examination, and upon satisfactory completion of the required Courses and passing the exam, become a Certified Athletic Trainer.

**A.S. DEGREE: ATHLETIC TRAINING/SPORTS MEDICINE**

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Complete the transfer pattern to successfully transfer to a four (4) year degree program.
2. Apply critical thinking to utilize protocols in regard to safely designing and monitoring the various preventive and rehabilitative techniques, as well as administering emergency care.
3. Demonstrate competence in Athletic Training concepts, NATA competencies, and NATA theoretical perspectives and current research.

**PROGRAM REQUIREMENTS**

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 97) or the University Preparation Pathway (p. 101) which include completion of the requirements below Courses should be selected with the assistance of an Athletic Training faculty advisor.

**REQUIRED COURSES - COMPLETE 32 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PE 108</td>
<td>Care and Prevention of Athletic Injuries</td>
<td>3</td>
</tr>
<tr>
<td>PE 111</td>
<td>Application of Sports Medicine</td>
<td>3</td>
</tr>
<tr>
<td>ANAT 125</td>
<td>Human Anatomy</td>
<td>5</td>
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<tr>
<td>CHEM 143</td>
<td>Introductory College Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>HE 110</td>
<td>Healthful Living</td>
<td>3</td>
</tr>
<tr>
<td>PHYSIO 101</td>
<td>Introductory Human Physiology</td>
<td>5</td>
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<tr>
<td>PSYCH 101</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PE 141</td>
<td>Supervision in Athletic Training</td>
<td>2 OR</td>
</tr>
<tr>
<td>PE 142</td>
<td>Supervision in Athletic Training</td>
<td>2 OR</td>
</tr>
<tr>
<td>PE 143</td>
<td>Supervision in Athletic Training</td>
<td>2 OR</td>
</tr>
<tr>
<td>PE 144</td>
<td>Supervision in Athletic Training</td>
<td>2 OR</td>
</tr>
<tr>
<td>PSYCH 302</td>
<td>General Psychology</td>
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</tbody>
</table>

**TOTAL UNITS IN A.S. MAJOR** .................................................. 32

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**Autobody/Refinishing PROGRAM**

The Auto Body program is designed to help the beginning student progress through basic procedures in body repairs and painting to entry-level job skill development. Current practices used in industry are emphasized. The course orientation examines use of trade equipment, shop safety, theory, and hands-on activities required to perform practical repair operations. The Auto Body program is designed to help the beginning student progress through basic procedures in body repairs and painting to entry-level job skill development. Current practices used in industry are emphasized. The course orientation examines use of trade equipment, shop safety, theory, and hands-on activities required to perform practical repair operations.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Perform Auto Body repairs in accordance with industry standards.
2. Comply with current Auto Body industry safety and environmental standards.

**PROGRAM REQUIREMENTS**

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

**REQUIRED COURSES - COMPLETE 19 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AUBDY 301</td>
<td>Automotive Collision Repair 1</td>
<td>5</td>
</tr>
<tr>
<td>AUBDY 302</td>
<td>Automotive Collision Repair 2</td>
<td>5</td>
</tr>
<tr>
<td>AUBDY 303</td>
<td>Automotive Collision Repair 3</td>
<td>4</td>
</tr>
<tr>
<td>AUBDY 321</td>
<td>Automotive Spray Refinishing 1</td>
<td>2</td>
</tr>
<tr>
<td>AUBDY 322</td>
<td>Automotive Spray Refinishing 2</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD** .................. 19

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**Certicate of Achievement: AutoBody/Collision Repair**

The Auto Body program is designed to help the beginning student progress through basic procedures in body repairs and painting to entry-level job skill development. Current practices used in industry are emphasized. The course orientation examines use of trade equipment, shop safety, theory, and hands-on activities required to perform practical repair operations.
A.S. DEGREE: AUTobody/Refinishing

The Auto Body program is designed to help the beginning student progress through basic procedures in body repairs and painting to entry-level job skill development. Current practices used in industry are emphasized. The course orientation examines use of trade equipment, shop safety, theory, and hands-on activities required to perform practical repair operations.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Work successfully in the autobody/collision repair industry.
2. Demonstrate compliance with current autobody industry safety and environmental standards.
3. Perform body repairs in accordance with autobody industry standards.

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 26.5 UNITS

AUBDY 301 [1] Automotive Collision Repair 1 ........................................................ 5
AUBDY 303 [3,4] Automotive Collision Repair 3 ....................................................... 4
AUBDY 321 [1,2] Automotive Spray Refinishing 1 ..................................................... 2
AUBDY 322 [2,3,4] Automotive Refinishing 2 .............................................................. 3
AUTE 323 [2] Steering, Suspension, and Alignment .................................................. 3.5

ELECTIVE COURSES - COMPLETE A MINIMUM OF 3.5 UNITS


TOTAL UNITS IN A.S. MAJOR ............................................................................. 30

SKILLS RECOGNITION AWARD: AUTobody/Refinishing

The Auto Body program is designed to help the beginning student progress through basic procedures in body repairs and painting to entry-level job skill development. Current practices used in industry are emphasized. The course orientation examines use of trade equipment, shop safety, theory, and hands-on activities required to perform practical repair operations.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Comply with current industry safety and environmental regulations.
2. Perform basic refinishing techniques in accordance with industry standards.

PROGRAM REQUIREMENTS

To earn a Skills Recognition Award in Autobody Refinishing, student must complete 13 units required with a grade of C or better.

REQUIRED COURSES - COMPLETE 10 UNITS

AUBDY 301 [1] Automotive Collision Repair 1 ........................................................ 5
AUBDY 321 [1] Automotive Refinishing 1 ................................................................ 2
AUBDY 322 [2] Automotive Refinishing 2 ................................................................. 3

TOTAL UNITS FOR SKILLS RECOGNITION AWARD ..................................... 10

Autobody Courses (AUBDY)

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.

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 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 nonstructural 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.
The Technician program of instruction requires additional training in the more sophisticated technologies. This program prepares students to enter technician jobs that perform diagnostic and repair on complex automotive systems.

A.S. DEGREE: AUTOMOTIVE TECHNICIAN

The Automotive Technology program is designed to provide training in automobile repair, maintenance theory, study of factory manuals and publications, and applications of methods used in the auto servicing and repair industry. The Automotive Technology Program offers two levels of training: Automotive Technician and Maintenance Mechanic. The Maintenance Mechanic requires less course work. It provides the student with basic automotive skills to perform basic maintenance and service tasks. The Technician program of instruction requires additional training in the more sophisticated technologies. This program prepares students to enter technician jobs that perform diagnostic and repair on complex automotive systems.

Program Learning Outcomes

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate compliance with current automotive industry safety and environmental standards.
2. Perform maintenance and repair operations in accordance with ASE standards.

Program Requirements

To earn an Associate in science Degree: Automotive Technician, the student must complete 32.5 total units of required and elective courses and complete the Career and Technical Education Pathway requirements.

Required Courses - Complete 14.5 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AUTEC 200</td>
<td>Automotive Service Management</td>
<td>3</td>
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<tr>
<td>AUTEC 311</td>
<td>Basic Automotive Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUTEC 317</td>
<td>A7: Auto Heating and Air Conditioning</td>
<td>3.5</td>
</tr>
<tr>
<td>AUTEC 319</td>
<td>A8: Engine Performance</td>
<td>3.5</td>
</tr>
<tr>
<td>AUTEC 321</td>
<td>A5: Brakes Systems</td>
<td>3.5</td>
</tr>
<tr>
<td>AUTEC 322</td>
<td>A4: Steering, Suspension, &amp; Alignment</td>
<td>3.5</td>
</tr>
<tr>
<td>AUTEC 323</td>
<td>A2: Automatic Transmissions &amp; Transaxles</td>
<td>3.5</td>
</tr>
<tr>
<td>AUTEC 324</td>
<td>A3: Manual Transmissions &amp; Drive Axles</td>
<td>3.5</td>
</tr>
<tr>
<td>AUTEC 369</td>
<td>A6: Automotive Electricity 2</td>
<td>4</td>
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Elective Courses: Complete 18 Units

<table>
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<tr>
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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AUTEC 211</td>
<td>[2,3] Introduction to Alternative Fuels and Advanced Technology Vehicles</td>
<td>3</td>
</tr>
<tr>
<td>AUTEC 319</td>
<td>[2,3] A8: Engine Performance</td>
<td>3.5</td>
</tr>
<tr>
<td>AUTEC 320</td>
<td>L1: Advance Engine Performance</td>
<td>4</td>
</tr>
<tr>
<td>AUTEC 322</td>
<td>[2] A4: Steering, Suspension and Align</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Total Units for the A.S. Degree: 32.5

Certificate of Achievement: Automotive Technician

The Automotive Technology program is designed to provide training in automobile repair, maintenance theory, study of factory manuals and publications, and applications of methods used in the auto servicing and repair industry. The Automotive Technology Program offers two levels of training: Automotive Technician and Maintenance Mechanic. The Maintenance Mechanic requires less course work. It provides the student with basic automotive skills to perform basic maintenance and service tasks. The Technician program of instruction requires additional training in the more sophisticated technologies. This program prepares students to enter technician jobs that perform diagnostic and repair on complex automotive systems.
PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate compliance with current automotive industry safety and environmental standards.
2. Perform maintenance and repair operations in accordance with ASE standards.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COMPETENCIES

MATH 20 [1,2,3] Pre-Algebra ................................................................. 5 OR
Eligibility for MATH 70 by MJC assessment process

REQUIRED COURSES - COMPLETE 11 UNITS

AUTEC 311 [1] Basic Automotive Systems .................................................. 4
ELTEC 208 [2,3] World of Electricity and Electronics ................................. 3 OR
MACH 301 [1] Machine Shop I ................................................................. 3 OR
MACH 211D [1] Machine Tool Technology 1 .............................................. 4

ELECTIVE COURSES - COMPLETE 27 UNITS

AUTEC 315 [2,3,4] Engine Rebuilding ..................................................... 3.5
AUTEC 317 [3,4] Automotive Air Conditioning ........................................... 3.5
AUTEC 320 [4] L1: Advanced Engine Performance .................................... 4
AUTEC 322 [2,3,4] A4: Steering, Suspension, & Alignment ......................... 3.5

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ............. 38

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 3.5 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 3.5 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 3.5 UNITS
36 Lecture Hours, 81 Lab Hours
Prerequisite: Satisfactory completion of AUTEC 368.
Corequisite: Concurrent enrollment in or satisfactory completion of AUTEC 369.
Prepares students for Automotive Service Excellence A8 Exam. Comprehensive study of diagnosis and repair applications including general engines, ignition systems, fuel, air induction and exhaust systems, emission control systems, computerized engine controls, and engine electrical systems. Materials fee required. Field trips might be required. (A-F Only)

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 3.5 UNITS
36 Lecture Hours, 81 Lab Hours
Prerequisite: Satisfactory completion of AUTEC 311.
Prepares students for the Automotive Service 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 3.5 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 3.5 UNITS
36 Lecture Hours, 81 Lab Hours
Prerequisite: Satisfactory completion of AUTEC 311.

Prepares students for the Automotive Service Excellence A2 Exam. A detailed study of the clutch, standard and automatic 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 3.5 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 3.5 UNITS
36 Lecture Hours, 81 Lab Hours
Corequisite: Concurrent enrollment in or satisfactory completion of AUTEC 311.

Introduction to automotive electrical systems. Course covers basic fundamentals: Ohm’s law, starting and charging systems, batteries, alternators and starters. Course also covers principles of operation, testing, adjusting, and rebuiding 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.

AUTEC 377—B: BIOLOGICAL SCIENCES

A.S. DEGREE: UNIVERSITY PREPARATION, EMPHASIS IN BIOLOGICAL SCIENCES

ABOUT THIS EMPHASIS

The study of biology includes various aspects of life, including basic organization (molecular, cellular, tissues, organs), how organisms function, their roles in the natural environment, how hereditary information is transferred, and development of biotechnology.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Apply the scientific method of discovery to problem solving situations in biology, mathematics, and chemistry.
2. Proficiently use the scientific vocabulary, including the key terms and concepts in biology, chemistry, and mathematics.

REQUIRED COURSES – TAKE 13 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>BIO 101 [NP] Biological Principles</td>
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<tr>
<td>BOT 101 [NP] General Botany</td>
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</tr>
<tr>
<td>ZOOL 101 [NP] General Zoology</td>
<td>4</td>
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</table>

ELECTIVE COURSES – TAKE 10 UNITS

- Please refer to www.assist.org for your chosen transfer university and specific major, and use that information to select 2 courses within one discipline from the following list of electives. Additional courses may be required by your transfer university.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>CHEM 101 [NP] General Chemistry 1</td>
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<tr>
<td>CHEM 102 [NP] General Chemistry 2</td>
<td>5</td>
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<tr>
<td>MATH 134 [NP] Elementary Statistics</td>
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<tr>
<td>MATH 171 [NP] Calculus: First Course</td>
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<tr>
<td>MATH 172 [NP] Calculus: Second Course</td>
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</tr>
<tr>
<td>PHYS 142 [NP] Mechanics, Heat, and Waves</td>
<td>5</td>
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<tr>
<td>PHYS 143 [NP] Electricity, Magnetism, Optics, Atomic and Nuclear Structure</td>
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</table>

TOTAL UNITS REQUIRED IN AREA OF EMPHASIS 23

*Conversion of this degree from an AA to an AS is currently pending approval from the California Community Colleges Chancellor’s Office.
BIO 50 — BASIC BIOLOGY  
3 UNITS  
54 Lecture Hours  
Introduction to the study of living organisms. Intended as a practical foundation for students interested in a basic knowledge of biological principles, terminology and the scientific process. May serve as a bridge to transfer level biology courses and is not open to students who have completed a transfer-level biology course. Field trips may be required. (A-F or P/NP) Lecture. General Education: (MJC-GE:A)

BIO 101 — BIOLOGICAL PRINCIPLES  
5 UNITS  
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 + BOT 101 + ZOOL 101 = CC BIO 2 + 4 + 6) General Education: (MJC-GE:A) (CSU-GE: B2, B3) (IGETC: SB, SC)

BIO 111 — GENERAL BIOLOGY  
4 UNITS  
54 Lecture Hours, 54 Lab Hours  
Introduction to principles of life, including reproduction, heredity, development, evolution, historical development of biology, molecular biology, and ecology. Not open to students who have completed BIO 101. Not a substitute for BIO 101. Field trips 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: SB, SC)

BIO 114 — GENERAL ECOLOGY  
4 UNITS  
54 Lecture Hours, 54 Lab Hours  
Formerly listed as BIO 114 - Introduction to Ecology  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.  
Introduction to the biological sciences and the general concepts and principles of ecology. Topics include organization and energetics of nature, 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: SB, SC)

BIO 115 — GENETICS, EVOLUTION, AND SOCIETY  
3 UNITS  
54 Lecture Hours  

BIO 116 — BIOLOGY: A HUMAN PERSPECTIVE  
4 UNITS  
54 Lecture Hours, 54 Lab Hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and satisfactorily complete MATH 70.  
An introduction to the principles of biology with an emphasis on humans. Topics covered include scientific method, cell structure and function, biochemistry, metabolism, heredity, biotechnology, evolution, anatomy and physiology of the human body, development of aging, disease, and ecology. BIO 116 is recommended for allied health students. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education: (MJC-GE:A) (CSU-GE: B2, B3) (IGETC: SB, SC)

BIO 140 — INTRODUCTION TO MARINE BIOLOGY  
4 UNITS  
54 Lecture Hours, 54 Lab Hours  
Introduction to the natural history of plant and animals living in temperate and tropical marine habitats, including rocky shore, mudflat, sandy beach, salt marsh, coral reef, mangal forest, open ocean, deep ocean, and bay/estuary. Polar and subpolar marine ecosystems will also be introduced. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education: (MJC-GE:A) (CSU-GE: B2, B3) (IGETC: SB, SC)

BIO 145 — INTRODUCTION TO FRESHWATER BIOLOGY  
4 UNITS  
54 Lecture Hours, 54 Lab Hours  
Introduction to the natural history of common organisms of the freshwater environment along with basic ecological principles, which includes: energy flow, nutrient cycling, population dynamics, and community structure. (A-F or P/NP) Field trips required. Lecture/Laboratory. Materials fee required. Transfer: (CSU, UC) General Education: (MJC-GE:A) (CSU-GE: B2, B3) (IGETC: SB, SC)

BIO 151X, A, B, C — BIOLOGY FIELD STUDIES  
0.5, 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, ZOOL 101, BOT 101 or other college-level biology course.)  
Field trips to representative and unique ecosystems. Emphasis on life histories, adaptations and biological interactions of organisms within the ecosystem studied. Field experiences will include sampling methods, preparation of field notes and field identification of species characteristic of the ecosystem. Field trips are required. Lecture/Laboratory. Materials fee required. Not offered every semester Transfer: (CSU)

BIO 180AB — INTRODUCTION TO TUTORING BIOLOGY  
1.2 UNITS  
A=9 Lecture Hours, 27 Lab Hours, B=18 Lecture Hours, 54 Lab Hours  
Formerly listed as: BIO - 180: Special Projects in Biology  
Prerequisite: Satisfactory completion of BIO 111 or BIO 116 or BIO 101.  
Fundamental skills of tutoring in the biology lab. Strategies for tutoring students enrolled in general biology or human biology will be learned. Specific focus will be on techniques for identifying microscopic and macroscopic structures in the biology lab. Intended for students selected as tutors for the biology or human biology lab. Field trips might be required. (A-F or P/NP) Transfer: (CSU)
B: BOOKKEEPING

In the Bookkeeping program, students learn to analyze and enter transactions in journals, post to ledgers, complete worksheets, prepare the company’s payroll, calculate employer payroll taxes, prepare the federal and state payroll tax forms, use various bookkeeping registers, prepare adjusting and closing entries, prepare classified earnings and capital statements, and prepare balance sheets. Students also learn about depreciation, bad debts, cost of goods sold, notes receivable, notes payable, inventory valuation and business taxes. The use of computers is also an important part of the bookkeeping program.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Recognize and analyze ethical issues as they apply to the business environment.
2. Obtain employment as an entry-level bookkeeper.
3. Demonstrate the working knowledge required to perform the various tasks necessary in a complete accounting cycle.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES - COMPLETE 22 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>BUSAD 310</td>
<td>Bookkeeping 1</td>
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<tr>
<td>BUSAD 320</td>
<td>Bookkeeping 2</td>
<td>2</td>
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<tr>
<td>BUSAD 200</td>
<td>Spreadsheet Skills for Financial Accounting</td>
<td>2</td>
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<td>BUSAD 203</td>
<td>Computer Accounting</td>
<td>3</td>
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<tr>
<td>BUSAD 300</td>
<td>Machine Calculation</td>
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<td>OFADM 50</td>
<td>Business Computations</td>
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<td>BUSAD 319</td>
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<td>BUSAD 336</td>
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ELECTIVE COURSES - COMPLETE 6 UNITS

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<td>BUSAD 240</td>
<td>Principles of Management</td>
<td>3</td>
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<td>BUSAD 248</td>
<td>Introduction to Business</td>
<td>1</td>
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<tr>
<td>BUSAD 377</td>
<td>Human Relations in Business</td>
<td>3</td>
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<tr>
<td>BUSAD 274</td>
<td>Human Resources Management</td>
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TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .......................... 25

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (P. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 22 UNITS

<table>
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<tr>
<td>BUSAD 320</td>
<td>Bookkeeping 2</td>
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<td>BUSAD 200</td>
<td>Spreadsheet Skills for Financial Accounting</td>
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<tr>
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</tbody>
</table>

TOTAL UNITS FOR A.S. AWARD.......................................................... 28

* Pending State Chancellor’s Office approval.

CERTIFICATE OF ACHIEVEMENT: BOOKKEEPING

The Bookkeeping Certificate is designed for students planning to enter the job market at the entry level as a bookkeeper after completing the required program courses. Students should have keyboarding skills. If not, he/she should take a beginning keyboarding course. Degrees and Certificates are awarded to students in recognition of completion of specified requirements, which indicate proficiency. All Required Courses must be passed with a “C” grade or better. Interested students should consult Business Administration faculty advisors.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Recognize and analyze ethical issues as they apply to the business environment.
2. Obtain employment as an entry-level bookkeeper.
3. Demonstrate the working knowledge required to perform the various tasks necessary in a complete accounting cycle.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES - COMPLETE 22 UNITS

<table>
<thead>
<tr>
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ELECTIVE COURSES - COMPLETE 3 UNITS

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<td>BUSAD 230</td>
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<td>BUSAD 248</td>
<td>Introduction to Business</td>
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TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .......................... 25

Botany Courses (BOT)

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>BOT 101</td>
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<td>36 Lecture Hours, 108 Lab Hours</td>
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<td>Prerequisite: Satisfactory completion of BIO 101.</td>
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**Business Administration Program**

This curriculum plan is intended for those interested in transferring to a four-year college or university. Students seeking transfer to a California State University (CSU) campus should refer to the A.S.T. degree in Business Administration. Students seeking transfer to other colleges or universities should use the A.S. degree in Business Administration and choose courses which meet the entrance requirements of their intended college of transfer. Students are encouraged to consult with the business administration faculty and a counselor in order to modify the curriculum to reflect their career interests and the career goals of the major. Students who plan to pursue a Business Administration major at a four-year institution should check the catalog of the senior school for specific requirements. Visit www.assist.org for specific transfer information.

The Business Administration program is designed to prepare students who plan to transfer to a four-year college or university to earn a Bachelor in Arts or Science Degree. Students take classes to complete general education requirements and combine business classes in accounting, economics, marketing, and business law to complete the Business Administration program. Upon transferring to a four-year college or university, students may choose a concentration in areas such as accounting, business teacher education, executive secretarial administration, finance, insurance, international business, management information, marketing, production operations and systems management, and real estate and land use affairs.

### A.S.-T Degree: Business Administration

**About This Program**

This curriculum plan is intended for those interested in transferring to a four-year college or university. Students seeking transfer to a California State University (CSU) campus should refer to the A.S.T. degree in Business Administration. Students seeking transfer to other colleges or universities should use the A.S. degree in Business Administration and choose courses which meet the entrance requirements of their intended college of transfer. Students are encouraged to consult with the business administration faculty and a counselor in order to modify the curriculum to reflect their career interests and the career goals of the major. Students who plan to pursue a Business Administration major at a four-year institution should check the catalog of the senior school for specific requirements. Visit www.assist.org for specific transfer information.

The Business Administration program is designed to prepare students who plan to transfer to a four-year college or university to earn a Bachelor in Arts or Science Degree. Students take classes to complete general education requirements and combine business classes in accounting, economics, marketing, and business law to complete the Business Administration program. Upon transferring to a four-year college or university, students may choose a concentration in areas such as accounting, business teacher education, executive secretarial administration, finance, insurance, international business, management information, marketing, production operations and systems management, and real estate and land use affairs.

**Program Learning Outcomes**

Upon satisfactory completion of this award, the student should be prepared to:

1. Transfer to a CSU college.
2. Be academically prepared for upper division coursework.
3. Demonstrate the ability to recognize and analyze ethical issues as they apply to the business environment.
4. Demonstrate an understanding of business terminology.

### A.S. Degree: Business Administration

This curriculum plan is intended for those interested in transferring to a four-year college or university. Students seeking transfer to a California State University (CSU) campus should refer to the A.S.T. degree in Business Administration. Students seeking transfer to other colleges or universities should use the A.S. degree in Business Administration and choose courses which meet the entrance requirements of their intended college of transfer. Students are encouraged to consult with the business administration faculty and a counselor in order to modify the curriculum to reflect their career interests and the career goals of the major. Students who plan to pursue a Business Administration major at a four-year institution should check the catalog of the senior school for specific requirements. Visit www.assist.org for specific transfer information.

The Business Administration program is designed to prepare students who plan to transfer to a four-year college or university to earn a Bachelor in Arts or Science Degree. Students take classes to complete general education requirements and combine business classes in accounting, economics, marketing, and business law to complete the Business Administration program. Upon transferring to a four-year college or university, students may choose a concentration in areas such as accounting, business teacher education, executive secretarial administration, finance, insurance, international business, management information, marketing, production operations and systems management, and real estate and land use affairs.

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### A.S. Degree: Business Administration Requirements

**Program Learning Outcomes**

- Minimum of 18 semester units in the major with a grade of "C" or better while maintaining a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable course work.
- Completion of 60 semester CSU-transferable units using the CSU-GE breadth or the IGETC pattern.
- Exactly 60 semester units are required for the degree.

#### Required Core: (18 Units)

- BUSAD 201 [NP] Financial Accounting .................................................. 4
- BUSAD 202 [NP] Managerial Accounting .................................................. 4
- BUSAD 218 [NP] Business Law ................................................................. 4
- ECON 101 [NP] Principles of Macroeconomics ......................................... 3
- ECON 102 [NP] Principles of Microeconomics .......................................... 3

**List A: Complete 1 Course (3-5 Units)**

- MATH 134 [NP] Elementary Statistics ...................................................... 5 OR
- MATH 130 [NP] Finite Mathematics ........................................................... 3 OR
- MATH 138 [NP] Calculus for Business & Social Sciences .......................... 3

**List B: Select Two (Complete 5-8 Units)**

Any list A course not used above
- CSCI 201 [NP] Computer Literacy ............................................................... 3 AND
- BUSAD 248 [NP] Introduction to Business ................................................... 3 OR
- BUSAD 210 [NP] Business Communication ................................................ 3

**Total Units Required in A.S.-T Major**

- CSU TRANSFERABLE ELECTIVES (AS NEEDED) ..................................... 1-3

**Total Units Required for A.S.-T Degree**

- UNITS REQUIRED FOR CSU-GE BREADTH ........................................... 39
- UNITS REQUIRED FOR IGETC/CSU BREADTH ........................................ 37-39
- CSU TRANSFERABLE ELECTIVES (AS NEEDED) ..................................... 1-3
- DOUBLE-COUNTED UNITS ................................................................... 9

*Note: Double counting courses in GE and the major is permissible. Guidance and Activities requirements are not required for the Associate in Science in Business Administration for Transfer degree.*
**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Transfer to a 4-year college or university (non-CSU).
2. Be academically prepared for upper division coursework.
3. Demonstrate the ability to recognize and analyze ethical issues as they apply to the business environment.
4. Demonstrate an understanding of business terminology.

To earn an Associate in Science Degree in this major, the student must complete the requirements detailed in the University Preparation Pathway which include completion of the requirements below. This degree is intended for individuals who desire to transfer to a University of California (UC) campus or other four-year college (non California State University campus). Students seeking to transfer to a CSU campus should pursue the Associate in Science Transfer Degree (A.S.-T). Students are advised to consult with a counselor and visit www.ASSIST.org in order to meet specific college or university transfer requirements.

**REQUIRED COURSES—COMPLETE 18 UNITS**

| BUSAD 201 | 2 | Financial Accounting | 4 |
| BUSAD 202 | 3 | Managerial Accounting | 4 |
| ECON 101 | 1 | Principles of Macroeconomics | 3 |
| ECON 102 | 2 | Principles of Microeconomics | 3 |
| BUSAD 218 | 3 | Business Law | 4 |

**ELECTIVE COURSES—COMPLETE 9 UNITS**

| BUSAD 200 | 2 | Spreadsheet Skills for Financial Accounting | 2 |
| BUSAD 203 | 4 | Computer Accounting | 3 |
| BUSAD 210 | 3 | Business Communication | 3 |
| BUSAD 230 | 2 | Personal Finance | 3 |
| BUSAD 240 | 1 | Principles of Management | 3 |
| BUSAD 245 | 2 | Principles of Marketing | 3 |
| BUSAD 248 | 1 | Introduction to Business | 3 |
| BUSAD 249 | 1 | Business Internship | 4 |
| BUSAD 274 | 4 | Human Resources Management | 3 |
| BUSAD 208 | 4 | Introduction to International Business | 3 |
| CSCI 201 | 3 | General Computer Literacy | 3 |

**TOTAL UNITS IN A.S. MAJOR** .......................................................... 27
* Pending State Chancellor’s Office approval.

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**Business Administration Courses (BUSAD)**

**BUSAD 50—BUSINESS COMPUTATIONS** 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 20 or qualify by placement through the MUC 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 200—SPREADSHEET SKILLS FOR FINANCIAL ACCOUNTING** 2 UNITS

18 Lecture Hours, 54 Lab Hours

Formerly listed as: BUSAD 200: Financial Accounting On Spreadsheet

Prerequisite: Satisfactory completion of BUSAD 310 or.

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

Introduction to spreadsheet software. Spreadsheet and template analysis, design, testing, and documentation as they relate to the field of accounting will be covered; hands-on experience using Microsoft Excel or a similar spreadsheet application will be used. Field trips are not required. (A-F or P/NP) 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-ACCT 110)

**BUSAD 202—MANAGERIAL ACCOUNTING** 4 UNITS

72 Lecture Hours

Prerequisite: Satisfactory completion of BUSAD 201.

Examination of how managers use accounting information in decision-making, planning, directing operations, and controlling. Focuses on cost concepts, decision making, cost behavior, cost structure, 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) (CID-ACCT 120)

**BUSAD 203—COMPUTER ACCOUNTING** 3 UNITS

36 Lecture Hours, 54 Lab Hours

Prerequisite: Satisfactory completion of BUSAD 201 or BUSAD 310.

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

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

**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) (CID-BUS) (CID-BUS115) General Education: (MJC-GE: D2)

BUSAD 218—BUSINESS LAW 4 UNITS 72 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be a third-semester Business Major.
Introduction to the legal process, laws and regulations affecting managerial decisions; legal concepts and case analysis in the areas of ethics, employment, consumer transactions, competition, the environment, business torts and crimes, contracts, agency, business organizations, and international business. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) (CC: BUSAD 18)(CID-BUS125)

BUSAD 230—PERSONAL FINANCE 3 UNITS 54 Lecture Hours
Open to both business and non-business majors. An integrated approach to personal finance and financial literacy. Topics are designed to facilitate informed and deliberate decision making, in alignment with personal values, to maximize financial resources throughout the individual’s life span. Emphasizes practical decision making using contemporary theory and real world examples while integrating the social, psychological, and physiological context in which financial decisions are made. Topics include common financial issues such as budgeting, career planning, goal setting, purchasing and financing a home and other large consumer purchases, personal risk management and insurance issues, managing credit, investment strategies, as well as tax, retirement and estate planning. Field trips are not required. (A-F or P/NP) Transfer: (CSU) General Education: (MJC-GE: E)

BUSAD 240—PRINCIPLES OF MANAGEMENT 3 UNITS 54 Lecture Hours
Concepts of management including managerial roles, ethical and legal issues, motivation and performance, organizational and team dynamics, leadership and motivation, decision making, and communication. Students explore how organizations do or do not function effectively in international and multicultural contexts. Field trips are not required. (A-F or P/NP) Transfer: (CSU) General Education: (MJC-GE: B)

BUSAD 245—PRINCIPLES OF MARKETING 3 UNITS 54 Lecture Hours
Overview of the foundations, principles, processes, and goals of marketing and an analysis of how marketing functions in current business practice. Customer needs and behaviors, development of a product and/or service to satisfy customer needs, design, and analysis of promotional strategies, distribution methods, and pricing. Field trips might be required. (A-F or P/NP) Transfer: (CSU) (CC: BUSAD 30)

BUSAD 246—RETAIL MANAGEMENT 3 UNITS 54 Lecture Hours
Formerly listed as: BUSAD 246: Store Management
An examination of the resources, abilities, and knowledge necessary to establish and operate a retail business successfully. Subjects studied include site selection, merchandising policies and management, buying policies and activities, pricing, retail promotion, customer service and credit, personal selling, and marketing research for retailers. Field trips are not required. (A-F or P/NP) Transfer: (CSU)

BUSAD 248—INTRODUCTION TO BUSINESS 3 UNITS 54 Lecture Hours
Survey of business principles, problems and operations; legal, ethical, moral, and social issues; ownership; human resources; management; production; marketing; finance; managerial controls, government regulation; risk management. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC)(CC BUSAD 20)(CID- BUS 110)

BUSAD 249—BUSINESS INTERNSHIP 4 UNITS 72 Discussion Hours
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)

BUSAD 274—HUMAN RESOURCES MANAGEMENT 3 UNITS 54 Lecture Hours
The role of human resources management and its contribution to the business organization. Principles and methods of effective utilization of human resources in the business environment. Examination of the human resources environment, as well as issues relating to employee recruitment, selection, assessment, development, compensation and rewards. Field trips might be required. (A-F or P/NP) Transfer: (CSU)

BUSAD 276—MACHINERY CALCULATION 2 UNITS 27 Lecture Hours, 27 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 20.
Instruction in the operation of the electronic calculator including addition, subtraction, multiplication, and division using constant factors and automatic accumulation as applied to business applications. Major emphasis on 10-key touch operation with maximum stroke/minute/accuracy rate. Field trips are not required. (A-F or P/NP)
BUSAD 310—BOOKKEEPING 1  3 UNITS
54 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 201 or satisfactorily complete BUSAD 50.

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

BUSAD 319—PAYROLL ACCOUNTING  3 UNITS
36 Lecture Hours, 54 Lab Hours
Prerequisite: Satisfactory completion of BUSAD 310 or BUSAD 201
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. 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)

BUSAD 320—BOOKKEEPING 2  3 UNITS
54 Lecture Hours
Prerequisite: Satisfactory completion of BUSAD 310
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.

BUSAD 331—BEGINNING COMPUTER ACCOUNTING SOFTWARE  1 UNIT
18 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to know the complete accounting cycle.

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.

BUSAD 332—INTERMEDIATE COMPUTER ACCOUNTING SOFTWARE  1 UNIT
18 Lecture Hours
Prerequisites: Satisfactory completion of BUSAD 331
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.

BUSAD 333—COMPUTER ACCOUNTING SOFTWARE  2 UNITS
36 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to know the complete accounting cycle.

Combination of BUSAD 331 and BUSAD 332. Beginning course in the use of computerized 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
54 Lecture Hours
Also offered as: SUPR 364
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete SUPR 351 or satisfactorily complete BUSAD 240.

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.

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Business Operations PROGRAM

The Business Operations major is designed for those students seeking an A.S. degree in management and/or marketing activities of organizations. The major offers two separate tracks for those students wishing to specialize in either area.

The Management track in Business Operations will prepare students for careers in both profit and nonprofit organizations. The basic functions of management are applied in organizations of all sizes and types. These functions include planning, organization, directing, and controlling. Students will learn the theory and techniques of problem solving, communication, motivation, and quality performance.

A.S. DEGREE: BUSINESS OPERATIONS: MANAGEMENT
The AS in Business Operations Management will prepare students for careers in both for-profit and nonprofit organizations. The basic functions of management are applied in organizations of all sizes and types. These functions include planning, organizing, directing, and controlling. Students will learn the theory and techniques of problem solving, communication, motivation, quality performance, as well as ethical issues faced by managers.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Recognize and analyze ethical issues as they apply to the business environment.
2. Obtain employment in an entry-level management position within the for-profit or non-profit sector.
3. Critically analyze common management issues.
4. Demonstrate appropriate and effective business communication skills.

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 20 UNITS

BUSAD 240 [1] Principles of Management .................................................................3
CSCI 201 [1] General Computer Literacy ................................................................3

ELECTIVE COURSES: COMPLETE 8-10 UNITS

BUSAD 202 [3] Managerial Accounting ..................................................................4
BUSAD 248 [1] Introduction to Business .................................................................3
BUSAD 245 [1] Principles of Marketing ..................................................................3
BUSAD 208 [1,2] Introduction to International Business ........................................3
BUSAD 209 [1,2] Import/Export Fundamentals .......................................................3
BUSAD 364 [1,2] Total Quality Management ............................................................3

TOTAL UNITS IN A.S. AWARD .................................................................................28–30

* Pending State Chancellor's Office approval.

Chemistry Program

A.S. DEGREE: UNIVERSITY PREPARATION, EMPHASIS IN CHEMISTRY

ABOUT THIS EMPHASIS

Chemistry is the branch of physical science that deals with the elementary substances, or forms of matter, of which all bodies are composed, the laws that regulate the combination of these elements in the formation of compound bodies, and the various phenomena that accompany their exposure to diverse physical conditions.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Score the national median or higher on American Chemical Society General Chemistry Exam (full year).
2. Score the national median or higher on American Chemical Society Organic Chemistry Exam (full Year).
3. Use of quantitative and/or qualitative analysis techniques to determine an unknown in a general chemistry laboratory.
4. Use of NMR, IR and other spectrum to determine an unknown organic compound.

REQUIRED COURSES – COMPLETE 10 UNITS

CHEM 101 [NP] General Chemistry 1 ........................................................................5
CHEM 102 [NP] General Chemistry 2 ........................................................................5
ELECTIVE COURSES — COMPLETE 10 UNITS

- Please refer to www.assist.org for your chosen transfer university and specific major, and use that information to select 2 courses to complete within one subject from the following list of electives. Additional courses may be required by your transfer university.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CHEM 112</td>
<td>[Organic Chemistry] 1</td>
<td>5</td>
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<tr>
<td>CHEM 113</td>
<td>[Organic Chemistry] 2</td>
<td>5</td>
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<tr>
<td>MATH 171</td>
<td>Calculus: First Course</td>
<td>5</td>
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<tr>
<td>MATH 172</td>
<td>Calculus: Second Course</td>
<td>5</td>
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<tr>
<td>MATH 173</td>
<td>Calculus: Third Course</td>
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</tr>
<tr>
<td>PHYS 142</td>
<td>Mechanics, Heat, and Waves</td>
<td>5</td>
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<tr>
<td>PHYS 143</td>
<td>Electricity, Magnetism, Optics, Atomic and Nuclear Structure</td>
<td>5</td>
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</tbody>
</table>

TOTAL UNITS REQUIRED IN AREA OF EMPHASIS .......................... 20

*Conversion of this degree from an AA to an AS is currently pending approval from the California Community Colleges Chancellor's Office.

### Chemistry Courses (CHEM)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CHEM 101</td>
<td>[General Chemistry] 1</td>
<td>5</td>
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<tr>
<td></td>
<td>54 Lecture Hours, 54 Lab Hours, 18 Discussion Hours</td>
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<td></td>
<td>Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process.</td>
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<td></td>
<td>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.</td>
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<td></td>
<td>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.</td>
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<tr>
<td>CHEM 102</td>
<td>[General Chemistry] 2</td>
<td>5</td>
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<tr>
<td></td>
<td>54 Lecture Hours, 54 lab Hours, 18 Discussion Hours</td>
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<tr>
<td></td>
<td>Prerequisite: Satisfactory completion of CHEM 101.</td>
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<tr>
<td>CHEM 112</td>
<td>[Organic Chemistry] 1</td>
<td>5</td>
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<tr>
<td></td>
<td>54 Lecture Hours, 72 Lab Hours, 18 Discussion Hours</td>
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<td>Prerequisite: Satisfactory completion of CHEM 102.</td>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHEM 113</td>
<td>[Organic Chemistry] 2</td>
<td>5</td>
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<tr>
<td></td>
<td>54 Lecture Hours, 108 Lab Hours</td>
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<td></td>
<td>Prerequisite: Satisfactory completion of CHEM 112.</td>
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<td>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 bi-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)(CC CHEM 4B + 4BL)</td>
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<tr>
<td>CHEM 142</td>
<td>[Pre-General Chemistry]</td>
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<td></td>
<td>36 Lecture Hours, 18 Discussion Hours</td>
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<td>Corequisite: or satisfactory completion of Concurrent enrollment in or satisfactory completion of MATH 90 or qualification by the MJC assessment process.</td>
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<td>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)</td>
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<tr>
<td>CHEM 143</td>
<td>[Introductory College Chemistry]</td>
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<td></td>
<td>54 Lecture Hours, 54 Lab Hours, 18 Discussion Hours</td>
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<td></td>
<td>Prerequisite: Satisfactory completion of MATH 70 or qualification by the MJC assessment process.</td>
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<td>Recommended for Success: Satisfactory completion of MATH 90.</td>
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<td>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)</td>
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<tr>
<td>CHEM 144</td>
<td>[Fundamentals of Organic &amp; Biochemistry]</td>
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<tr>
<td></td>
<td>54 Lecture Hours, 54 Lab Hours</td>
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<td></td>
<td>Prerequisite: Satisfactory completion of CHEM 143.</td>
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<tr>
<td>CHEM 150</td>
<td>[Exploring Our Chemical Environment]</td>
<td>3</td>
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<tr>
<td></td>
<td>54 Lecture Hours</td>
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<td></td>
<td>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 20) General Education: (MJC-GE:A)(CSU-GE: B1)(IGETC: 5A)</td>
<td></td>
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</tbody>
</table>
The Child Development program offers both theoretical and practical courses, which focus on the growth and development of all children from conception to late adolescence. Students use this knowledge to create culturally relevant, inclusive, age-appropriate, anti-bias environments that promote optimum care and learning opportunities. Coursework prepares students for a wide variety of careers in direct services for children and support services for families in licensed, state, federal, private and/or non-profit programs serving infants, children, and adolescents. Required coursework in the Child Development program emphasizes educational ladders leading to certificates, the Associate in science degree, and transfer to baccalaureate programs. This coursework is designed to meet the academic requirements of the Child Development Permits, issued by the California Commission on Teacher Credentialing, and the Early Intervention Certificate developed in conjunction with the California Early Start Community College Personnel Preparation Project in Early Intervention. Students should be advised that for the various levels of the Child Development Permits and Early Intervention Certificates, there is an experience requirement and/or general education requirements. All Child Development courses for certificates, degrees, and permits must be completed with a grade of “C” or better. All required general education requirements for the Child Development Permits and Early Intervention Certificates, both issued by the State, must be completed with a grade of “C” or better. All students are encouraged to consult a Child Development Advisor for enrollment and program details. Advisors will assist students in the selection of proper courses and sequences.

A.S. DEGREE: CHILD DEVELOPMENT

Program Learning Outcomes

Upon satisfactory completion of this award, the student should be prepared to:

1. Integrate understanding of the needs, the characteristics and multiple influences on development of children birth to age eighth as related to high quality care and education of young children.
2. Design, implement and evaluate environments and activities through observation, assessment, and intentional reflection that support positive, developmental play and learning outcomes for all young children.
3. Apply effective guidance and interaction strategies that support all children’s social learning, identity and self-confidence.
4. Develop strategies that promote partnerships between programs, teachers, families and their communities.

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

Required Courses - Complete 33 Units

C: CHEMISTRY / CHILD DEVELOPMENT

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

Program Learning Outcomes

Upon satisfactory completion of this award, the student should be prepared to:

1. Apply ethical standards and professional behaviors that demonstrate understanding and knowledge, deepening the commitment to the Early Care and Education profession.

Program Requirements

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

Required Courses - Complete 12 Units
CERTIFICATE OF ACHIEVEMENT: EARLY INTERVENTION ASSISTANT 2

The Certificates of Achievement in Child Development act as a pathway to various career opportunities in education, State of California permits, Early Intervention Assistant Personnel Competencies for California's Early Start Program, A.A./A.S. degrees, and transfer to a university.

Teachers and Administrators of funded child development programs in the State of California must hold permits issued by the California Commission on Teacher Credentialing. All certificates align with the permits issued by the State of California, Commission on Teacher Credentialing. To earn a Certificate of Achievement, the student must complete the coursework as indicated. Each course must be completed with a grade of C or better.

To earn the Early Intervention Assistant Certificate of Achievement students must complete 24 units of required coursework listed below. All courses must be completed with a grade of “C” or better.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Integrate understanding of the special needs, characteristics and multiple influences on development of children birth to age eight as related to high-quality care and education of young children.
2. Design, implement and evaluate environments and activities through observation, assessment, and intentional reflection that support positive, developmental play and learning outcomes for young children in inclusive environments.
3. Adapt and apply respectful, effective guidance and interaction strategies that support all children's social learning, identity and self-confidence.

REQUIRED COURSES: COMPLETE 24 UNITS

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>CLDDV 101</td>
<td>Principles and Practices of Teaching Young Children</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 105</td>
<td>Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 108</td>
<td>Guidance of Young Children</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 125</td>
<td>Infant and Toddler Development and Care</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 127</td>
<td>Infant/Toddler Practicum</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 128</td>
<td>Preschool Practicum</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 160</td>
<td>Introduction to Children With Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 163</td>
<td>Curriculum And Strategies For Children With Special Needs</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD: 24

* Pending State Chancellor’s Office approval.

CERTIFICATE OF ACHIEVEMENT: MASTER TEACHER

The Certificates of Achievement in Child Development act as a pathway to various career opportunities in education, State of California permits, Early Intervention Assistant Personnel Competencies for California’s Early Start Program, A.A./A.S. degrees, and transfer to a university.

Teachers and Administrators of funded child development programs in the State of California must hold permits issued by the California Commission on Teacher Credentialing. All certificates align with the permits issued by the State of California, Commission on Teacher Credentialing. To earn a Certificate of Achievement, the student must complete the coursework as indicated. Each course must be completed with a grade of C or better.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Recognize and describe the courses totaling 32 units necessary to complete this certificate and compare/contrast how the certificate is aligned with the Master Teacher.
2. Permit issued through State of California, Commission on Teacher Credentialing.
3. Apply specialized knowledge of courses from the six-unit option in the early care and education classroom (i.e. infant/toddler; early intervention; families and culture).
4. Apply effective guidance and interaction strategies that support all children’s social learning, identity and self-confidence as the lead teacher in the classroom.
5. Demonstrate an awareness and understanding of the diverse cultural aspects of child rearing and family practices and potential cultural conflicts as individuals interact.

REQUIRED COURSES - COMPLETE A MINIMUM OF 17 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLDDV 101</td>
<td>Principles and Practices of Teaching Young Children</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 103</td>
<td>Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 107</td>
<td>Introduction to Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 109</td>
<td>Child-Family-Community</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 127</td>
<td>Infant and Toddler Practicum</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 128</td>
<td>Preschool Practicum</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 154</td>
<td>Adult Relationships &amp; Mentoring in Schools</td>
<td>2</td>
</tr>
</tbody>
</table>

ELECTIVES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CLDDV 111</td>
<td>Health, Safety, and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 121</td>
<td>Guidance of Young Children</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 125</td>
<td>Infant and Toddler Development and Care</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 163</td>
<td>Curriculum And Strategies For Children With Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 167</td>
<td>Observation and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 262</td>
<td>Diversity in Educational Settings</td>
<td>3</td>
</tr>
</tbody>
</table>

SELECT ONE 6-UNIT SPECIALIZATION OPTION FROM THE FOLLOWING:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLDDV 103</td>
<td>Principles and Practices of Teaching Young Children</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 105</td>
<td>Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 109</td>
<td>Child-Family-Community</td>
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<tr>
<td>CLDDV 163</td>
<td>Curriculum And Strategies For Children With Special Needs</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD: 32

* NOTE: Students completing the required Child Development coursework for an A.S. degree, and who have completed CLDDV 154, will be qualified at the Master Teacher Certificate level with a specialization in Early Intervention. In addition students completing the required Child Development coursework for an A.S. degree, and who have completed CLDDV 154, including the Infant/Toddler or Inclusion lab practice will be qualified at the Master Teacher Certificate level with a specialization in Infant/Toddler Development. Students should consult with a child development department advisor for specific information about specializations and the Master Teacher Permit.

CERTIFICATE OF ACHIEVEMENT: SITE SUPERVISOR

The Certificates of Achievement in Child Development act as a pathway to various career opportunities in education, State of California permits, Early Intervention Assistant Personnel Competencies for California’s Early Start Program, A.A./A.S. degrees, and transfer to a university.
Teachers and administrators of funded child development programs in the State of California must hold permits issued by the California Commission on Teacher Credentialing. All certificates align with the permits issued by the State of California, Commission on Teacher Credentialing. To earn a Certificate of Achievement, the student must complete the coursework as indicated. Each course must be completed with a grade of C or better.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Apply ethical standards and professional behaviors that demonstrate understanding and knowledge, deepening the commitment to the field of early care and education.
2. Integrate understanding of the needs, characteristics and multiple influences on development of children birth to age eight as related to delivering high quality care and education for young children.
3. Design, implement and evaluate environments and activities through observation, assessment, and intentional reflection that support positive, developmental play and learning outcomes for all young children.
4. Apply effective guidance and interaction strategies that support all children's social learning, identity and self-confidence.
5. Develop strategies that promote partnerships between programs, teachers, families and their communities.

PROGRAM REQUIREMENTS

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES - COMPLETE 23 UNITS

CLDDV 101 [1] Principles and Practices of Teaching Young Children ......................... 3
CLDDV 103 [1] Child Growth and Development ......................................................... 3
CLDDV 107 [2] Introduction to Curriculum .................................................................. 3
CLDDV 127 [2] Infant/Toddler Practicum ................................................................. 3 OR
CLDDV 128 [2] Preschool Practicum ............................................................................ 3
CLDDV 150 [3] Administration in Children’s Programs ............................................... 3
CLDDV 151 [4] Supervision In Children's Programs .................................................... 3

ELECTIVE COURSES - COMPLETE 6 UNITS

CLDDV 111 [NP] Health, Safety, and Nutrition ......................................................... 3
CLDDV 121 [NP] Guidance of Young Children .......................................................... 3
CLDDV 125 [NP] Infant and Toddler Development and Care .................................. 3
CLDDV 160 [NP] Introduction To Children With Special Needs ................................ 3
CLDDV 163 [NP] Curriculum And Strategies For Children With Special Needs ....... 3
CLDDV 167 [NP] Observation and Assessment .......................................................... 3
CLDDV 262 [NP] Diversity in Educational Settings .................................................... 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ....................... 32

CERTIFICATE OF ACHIEVEMENT: TEACHER

The Certificates of Achievement in Child Development act as a pathway to various career opportunities in education, State of California permits, Early Intervention Assistant Personnel Competencies for California's Early Start Program, A.A./A.S. degrees, and transfer to a university.

Teachers and administrators of funded child development programs in the State of California must hold permits issued by the California Commission on Teacher Credentialing. All certificates align with the permits issued by the State of California, Commission on Teacher Credentialing. To earn a Certificate of Achievement, the student must complete the coursework as indicated. Each course must be completed with a grade of C or better.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Integrate understanding of the needs, the characteristics and multiple influences on development of children birth to age eight as related to high quality care and education of young children.
2. Design, implement and evaluate environments and activities through observation, assessment, and intentional reflection that support positive, developmental play and learning outcomes for all young children.
3. Apply effective guidance and interaction strategies that support all children's social learning, identity and self-confidence.
4. Develop strategies that promote partnerships between programs, teachers, families and their communities.
5. Apply ethical standards and professional behaviors that demonstrate understanding and knowledge, deepening the commitment to the Early Care and Education.

PROGRAM REQUIREMENTS

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES - COMPLETE 18 UNITS

CLDDV 101 [1] Principles and Practices of Teaching Young Children ......................... 3
CLDDV 103 [1] Child Growth and Development ......................................................... 3
CLDDV 107 [2] Introduction to Curriculum .................................................................. 3
CLDDV 127 [3] Infant/Toddler Practicum ................................................................. 3 OR
CLDDV 128 [3] Preschool Practicum ............................................................................ 3
CLDDV 150 [3] Administration in Children’s Programs ............................................... 3
CLDDV 151 [4] Supervision In Children's Programs .................................................... 3

ELECTIVE COURSES - COMPLETE 6 UNITS

CLDDV 125 [4] Infant and Toddler Development and Care .................................. 3
CLDDV 167 [4] Observation and Assessment .......................................................... 3
CLDDV 262 [4] Diversity in Educational Settings .................................................... 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ....................... 24

Child Development Courses (CLDDV)

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.

An examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for all children. This course includes a review of the historical roots of early childhood programs and the evolution of the professional practices promoting advocacy, ethics and professional identity. Field trips might be required. (A-F or P/NP) Transfer: (CSU) (CC: CHILD 3) (CID-ECE 120)
Required. (A-F or P/NP)

The major physical, psychosocial, and cognitive/lan-
guage developmental milestones for children, both
typical and atypical, from conception through adolescence.

Studying developmental theory and investigative research methodologies, students
will examine children, evaluate individual differences, and analyze characteristics of
development at various stages. Field trips might be required. (A-F or P/NP) Transfer:

CLDDV 107—INTRODUCTION TO CURRICULUM
3 UNITS

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

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

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

CLDDV 109—CHILD-FAMILY-COMMUNITY
3 UNITS

An examination of the developing child in a societal context focusing on the
interrelationships of family, school and community and emphasizes historical and
sociocultural factors. The processes of socialization and identity development will be
highlighted, showing the importance of respectful, reciprocal relationships that support
and empower families. Field trips might be required. (A-F or P/NP) Transfer: (CSU)(CC CHILD 26) (CID-ECE 110)

CLDDV 111—HEALTH, SAFETY, AND NUTRITION
3 UNITS

Recommended for Success: Before enrolling in this course, students are

strongly advised to satisfactorily complete ENGL 50.

Introduction to the laws, regulations, standards, policies and procedures and early
childhood curriculum related to child health, safety, and nutrition. Key components
that ensure physical health, mental health, and safety for both children and staff
will be identified along with the importance of collaboration with families and health
professionals. Focus on integrating the concepts into everyday planning, and program
development for all children. Field trips might be required. (A-F or P/NP) Transfer: (CSU) (CC CHILD 26) (CID-ECE 220) General Education: [MUC GE: E]

CLDDV 121—GUIDANCE OF YOUNG CHILDREN
3 UNITS

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

Introduction to positive guidance and discipline approaches in educational and
family settings. Exploration of the underlying causes of misbehavior. Appropriate
and effective techniques that support socio-emotional, cognitive, psychological, and
physical health and development. Understanding of individual parent, teacher, and
caregiving styles and attitudes relative to behavior of children. Field trips might be
required. (A-F or P/NP) Transfer: (CSU) (CC CHILD 23)

CLDDV 122—LEARNING ENVIRONMENTS FOR INFANTS AND TODDLERS
3 UNITS

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) Transfer: (CSU)

CLDDV 125—INFANT AND TODDLER DEVELOPMENT AND CARE
3 UNITS

Recommended for Success: Before enrolling in this course, students are

strongly advised to satisfactorily complete ENGL 50.

A study of infants and toddlers from pre-conception to age three including physical,
cognitive, language, social, and emotional growth and development. Applies theoretical
frameworks to interpret behavior and interactions between heredity and environment.
Emphasizes the role of family and relationships in development Field trips might be
required. (A-F or P/NP) Transfer: (CSU) (CC: CHILD 25)

CLDDV 127—INFANT/TODDLER PRACTICUM
3 UNITS

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

Prerequisite: Satisfactory completion of CLDDV 121 and CLDDV 125.

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

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

A demonstration of developmentally appropriate early childhood teaching
competencies under guided supervision in an infant/toddler classroom. Students utilize
practical classroom experiences to make connections between theory and practice,
develop professional behaviors, and build a comprehensive understanding of children and
families, child centered, play-oriented approaches to teaching, learning, and assessment.
Knowledge of care routines and relationship based content areas will be emphasized as
student teachers design, implement, and evaluate experiences that promote positive
development and learning for all young children while supporting an inclusive and
culturally diverse environment. Will support IFSP goals and may include participation
in an educational meeting. This course is a capstone to the Child Development Program.
Students are encouraged to be near completion of their major coursework when they
enroll. Field trips might be required. (A-F or P/NP) Transfer: (CSU) (CC: CHILD 16 or 116)

CLDDV 128—PRESCHOOL PRACTICUM
3 UNITS

Formerly listed as: CLDDV - 128: Preschool Practicum

Prerequisite: Satisfactory completion of CLDDV 121 and CLDDV 125.

Recommended for Success: Before enrolling in this course, students are

strongly advised to satisfactorily complete ENGL 50.

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

A demonstration of developmentally appropriate early childhood teaching
competencies under guided supervision in a preschool classroom. Students utilize
practical classroom experiences to make connections between theory and practice,
develop professional behaviors, and build a comprehensive understanding of children and
families. Child centered, play-oriented approaches to teaching, learning, and assessment.
Knowledge of curriculum content areas will be emphasized as student

teachers design, implement and evaluate experiences that promote positive
development and learning for all young children while supporting an inclusive and
C: CHILD DEVELOPMENT

Culturally diverse environment. Will support IEP goals and may include participation in an educational meeting. This course is a capstone to the Child Development Program. Students are encouraged to be near completion of their major coursework when they enroll. This course is a capstone to the Child Development Program. Students are encouraged to be near completion of their major coursework when they enroll. Field trips might be required. (A-F or P/NP) Transfer: (CSU) (CC CHILD 16)

CLDDV 150—ADMINISTRATION IN CHILDREN’S PROGRAMS 3 UNITS
54 Lecture Hours
Formerly listed as: CLDDV 150: Administration of Children’s Programs
Introduction to the administration of early childhood programs. Covers program types, budget, management, regulations, laws, development and implementation of policies and procedures. Examines administrative tools, philosophies, and techniques needed to organize, open, and operate an early care and education program. This is a capstone course and it is expected that students have completed the CORE Child Development courses (101, 103, 107, & 109). It is recommended that prior to taking this course, students have experience working in the field. Field trips might be required. (A-F or P/NP) Transfer: (CSU) (CC CHILD 30)

CLDDV 151—SUPERVISION IN CHILDREN’S PROGRAMS 3 UNITS
54 Lecture Hours
Formerly listed as: CLDDV 151: Advanced Administration of Children’s Pro
Advanced Administration of Children’s Pro
Management and supervision in Early Care and Education programs. Includes strategic planning, group dynamics, supervision of staff and volunteers, development of motivation and morale, leadership and management skills, functions of personnel, interview skills, evaluations, human resource issues, resolving group conflicts and working with advisory boards. Designed to provide knowledge of methods and principles for working with adults in a supervisory capacity in Early Care and Education settings. This is a capstone course and it is expected that students have completed the CORE Child Development courses (101, 103, 107, & 109). It is recommended that prior to taking this course, students have experience working in the field. Field trips might be required. (A-F or P/NP) Transfer: (CSU) (CC CHILD 31)

CLDDV 154—ADULT RELATIONSHIPS & MENTORING IN SCHOOL 2 UNITS
36 Lecture Hours
Formerly listed as: CLDDV 154: Adult Relationship & Mentoring in School
Methods and principles of supervising student teachers, volunteers, staff, and other adults in early care and education settings. Emphasis is on the roles and development of early childhood professionals as mentors and leaders. Required for Master Teacher Permit and/or Site Supervisor Permit. This is a capstone course and it is expected that students have completed the CORE Child Development courses (101, 103, 107, & 109) prior to enrolling. It is recommended that prior to taking this course, students have experience working in the field. Field trips might be required. (A-F or P/NP) Transfer: (CSU) (CC CHILD 17)

CLDDV 160—INTRODUCTION TO CHILDREN WITH SPECIAL NEEDS 3 UNITS
54 Lecture Hours
Formerly listed as: CLDDV - 160: Atypical Development
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CLDDV 103 or satisfactorily complete ENGL 50.
Introduces the variations in development of children with special needs ages birth through eight and the resulting impact on families. Includes an overview of historical and societal influences, laws relating to children with special needs, and the identification and referral process. Field trips might be required. (A-For P/NP) Transfer: (CSU) General Education: (MIC-GE: B )

CLDDV 163—CURRICULUM AND STRATEGIES FOR CHILDREN WITH SPECIAL NEEDS 3 UNITS
54 Lecture Hours
Formerly listed as: CLDDV - 163: Working With Children With Special Needs
Prerequisite: Satisfactory completion of CLDDV 103.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.
Covers curriculum and intervention strategies for working with children with special needs in partnership with their families. Focuses on the use of observation and assessment in meeting the individualized needs of children in inclusive and natural environments. Includes the role of the teacher as a professional working with families, collaboration with interdisciplinary teams, and cultural competence. Field trips might be required. (A-F or P/NP) Transfer: (CSU) (CC CHILD 19)

CLDDV 167—OBSERVATION AND ASSESSMENT 3 UNITS
54 Lecture Hours
Prerequisite: Satisfactory completion of CLDDV 103 and CLDDV 163.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.
This course focuses on the appropriate use of assessment and observation strategies to document development, growth, play and learning to join with families and professionals in promoting children’s success. Recording strategies, rating systems, portfolios, and multiple assessment tools are explored. Field trips might be required. (A-F or P/NP) Transfer: (CSU) (CC CHILD 4) (CID-ECE 200)

CLDDV 262—DIVERSITY IN EDUCATIONAL SETTINGS 3 UNITS
54 Lecture Hours
Prerequisite: Satisfactory completion of CLDDV 103.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.
Examination of the development of social identities in diverse societies including theoretical and practical implications of oppression and privilege as they apply to young children, families, programs, classrooms, and teaching. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate 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 might be required. (A-F or P/NP) Transfer: (CSU) General Education: (MJC-GE: B ) (CSU-GE: D7)(CC CHILD 36) (CID-ECE 230)

CLDDV 266—MENTOR TEACHER SEMINAR 0.5 UNITS
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 0.5 UNITS
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)

**Clerical Program**

The Clerical program is designed to prepare students for various types of office occupations in the clerical field. Clerical training involves the study of various procedures, duties, and practices applicable to many businesses, as well as the development and acquisition of basic skills necessary for success in those positions. Students learn keyboarding, records management, human relations, office software, and business computations. Career possibilities in the clerical field are numerous. Jobs exist in governmental agencies, schools, health facilities, stores, and in private businesses. Some of the career alternatives for clerical graduates are records clerk, file clerk, general office clerk, mail clerk, receptionist, word processor, and office assistant.

**A.S. Degree: Clerical**

The Clerical program is designed to prepare students for various types of office occupations in the clerical field. Clerical training involves the study of various procedures, duties, and practices applicable to many businesses, as well as the development and acquisition of basic skills necessary for success in those positions. Students learn keyboarding, records management, human relations, office software, and business computations. Career possibilities in the clerical field are numerous. Jobs exist in governmental agencies, schools, health facilities, stores, and in private businesses. Some of the career alternatives for clerical graduates are records clerk, file clerk, general office clerk, mail clerk, receptionist, word processor, and office assistant.

**Program Learning Outcomes**

Upon satisfactory completion of this award, the student should be prepared to:

1. Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment.
2. Competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines.
3. Actively assist in implementing general office procedures, including records management.

**Program Requirements**

To earn an associate in science degree, the student must complete the requirements detailed in the Career Technical Educational Pathway or the University Preparation Pathway which include completion of the requirements below.

**Required Courses**

- OFADM 320 [2] Telephone Techniques ..................................................1
- OFADM 359 [3] Introduction to Spreadsheet Software ............................1
- OFADM 362 [3] Introduction to Business Presentation Software ................1
- OFADM 375 [4] 10-Key on the Computer ..................................................1

**Total Units in A.S. Major** ..................................................29.5

**Certificate of Achievement: Clerical**

The Clerical program is designed to prepare students for various types of office occupations in the clerical field. Clerical training involves the study of various procedures, duties, and practices applicable to many businesses, as well as the development and acquisition of basic skills necessary for success in those positions. Students learn keyboarding, records management, human relations, office software, and business computations. Career possibilities in the clerical field are numerous. Jobs exist in governmental agencies, schools, health facilities, stores, and in private businesses. Some of the career alternatives for clerical graduates are records clerk, file clerk, general office clerk, mail clerk, receptionist, word processor, and office assistant.

**Program Learning Outcomes**

Upon satisfactory completion of this award, the student should be prepared to:

1. Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment.
2. Competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines.
3. Actively assist in implementing general office procedures, including records management.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

**Required Courses**

- BUSAD 50 [1] Business Computations .....................................................3
- OFADM 202 [1] Intermediate Keyboarding 2 ........................................2
- OFADM 303 [1] Keyboarding for Speed and Accuracy .............................0.5
- OFADM 304 [2] Professional English for Business ......................................3
- OFADM 313 [1] Office Skills .................................................................3
- OFADM 330 [1] Introduction to Computers and Windows .........................1
- OFADM 359 [2] Introduction to Spreadsheet Software ............................1
- OFADM 362 [3] Introduction to Business Presentation Software ................1
- OFADM 363 [1] Understanding the Internet ...........................................1
- OFADM 366 [2] Proofreading Techniques ...............................................1
- OFADM 375 [1] 10-Key on the Computer ..............................................1

**Total Units for Certificate of Achievement Award** ........................................30

* Pending State Chancellor’s Office approval.
Communication Studies Program

The Communication Studies Program at Modesto Junior College offers students a variety of courses which incorporate both theory and performance instruction. These include public speaking, argumentation and debate, organizational communication, intercultural and interpersonal communication, contest speaking and forensics competition which includes debate and individual events. Most courses are available to students in both day and evening hours.

A.A.-T Degree: Communication Studies

The Associate in Arts in Communication Studies for Transfer degree includes curriculum which focuses on practical application of communication skills and communication theory. Students who complete the degree will be able to demonstrate communication competence in both personal and business relationships. The Associate in Arts in Communication Studies for Transfer is intended for students who plan to complete a bachelor's degree in Communication Studies at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU campus that does not accept this degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university where that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. In order to earn this A.A.-T degree, students must complete a minimum of 60 required semester units of CSU transferable coursework with a minimum GPA of 2.0.

Program Learning Outcomes

Upon satisfactory completion of this award, the student should be prepared to:

1. Construct speeches and other compositions demonstrating clarity of ideas, research skills, proper source citation, logical argument, awareness of audience, and proper outlining techniques.

2. Identify and apply principles of interpersonal communication theory to build functional relationships.

3. Demonstrate critical thinking in the analysis and production of communication.

4. Adequately debate others, present platform speeches, or perform works of literature in a classroom or outside venue.

To earn an Associate in Arts for Transfer Degree in this major, the student must complete the requirements detailed in the Transfer Model Curriculum pathway. All courses must be completed with a C or better.

Required Core - Complete 3 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 100</td>
<td>Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

List A (Select Two) - Complete 6 Units

- COMM 104 - Argumentation
- COMM 105 - Introductions to Debate
- COMM 103 - Interpersonal Communication
- COMM 106 - Group & Organizational Communication

List B (Select Two) - Complete 6 Units

- Any List A course not used above.
- COMM 102 - Introduction to Human Communication
- COMM 105 - Intercollegiate Forensics
- COMM 110 - Persuasion
- COMM 120 - Oral Interpretation
- COMM 130 - Intercultural Communication

List C (Select One) - Complete 3 Units

- Any List A or List B course not used above.
- COMM 112 - Introduction to Readers' Theatre
- COMM 123 - Storytelling
- COMM 124 - Advanced Readers’ Theatre

Total Units for the A.A.T. Major

18

Total Units That May Be Double-Counted

18

General Education (CSU-GE or IGETC) Units

37-39

Elective (CSU Transferable) Units

21-23

Total Degree Units

60

*Note: Double counting courses in GE and the major is permissible. Guidance and Activities requirements are not required for the Associate in Arts in Communication Studies for Transfer degree.

* Pending State Chancellor’s Office approval.

A.A. Degree: Communication Studies

The Communication Studies Program at Modesto Junior College offers students a variety of courses which incorporate both theory and performance instruction. These include public speaking, argumentation and debate, organizational communication, intercultural and interpersonal communication, contest speaking and forensics competition which includes debate and individual events. Most courses are available to students in both day and evening Hours.

Program Learning Outcomes

Upon satisfactory completion of this award, the student should be prepared to:

1. Construct a speech outline demonstrating clarity of ideas, proper source citation, awareness of audience, and proper outlining techniques.

2. Identify and apply principles of interpersonal communication theory to build functional relationships.
To earn an associate degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below. Student should consult with a Speech advisor for selection of elective units.

REQUIRED COURSES - COMPLETE 6 UNITS
- COMM 102 [1] Introduction to Human Communication .............................................3
- COMM 100 [1] Fundamentals of Public Speaking .....................................................3
- COMM 104 [NP] Argumentation .................................................................................3

ELECTIVE COURSES - COMPLETE 14 UNITS
- COMM 103 [NP] Interpersonal Communication .......................................................3
- COMM 105 [NP] Intercultural Communication ..........................................................3
- COMM 106 [NP] Group & Organizational Communication .....................................3
- COMM 107 [1] Introduction to Debate .................................................................3
- COMM 110 [NP] Persuasion ......................................................................................3
- COMM 120 [NP] Oral Interpretation ..........................................................................3
- COMM 122 (1) Introduction to Readers' Theatre ......................................................3
- COMM 123 [NP] Storytelling ...................................................................................3
- COMM 124 (2) Advanced Readers' Theatre ..............................................................3
- COMM 130 [NP] Intercultural Communication .......................................................3
- COMM 145 [NP] Parliamentary Procedure .............................................................1
- COMM 180A/B [NP] Communication Studies Lab Tutoring .....................................1

TOTAL UNITS IN A.A. MAJOR .................................................................................20

SKILLS RECOGNITION: COMMUNICATION STUDIES

The Communication Studies Program at Modesto Junior College offers 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. Most courses are available to students in both day and evening hours.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Construct a speech outline demonstrating clarity of ideas, proper source citation, awareness of audience, and proper outlining techniques.
2. Identify and apply principles of interpersonal communication theory to build functional relationships.
3. Find, evaluate, and incorporate research materials into written and oral argumentation, as well as cite sources correctly.

To earn a Skills Recognition Award, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES - COMPLETE 12 UNITS

ORAL COMMUNICATION AREA - COMPLETE 3 UNITS
- COMM 100 [NP] Fundamentals of Public Speaking ...............................................3
- COMM 102 [NP] Introduction to Human Communication .........................................3
- COMM 110 [NP] Persuasion .....................................................................................3

CRITICAL THINKING AREA- COMPLETE 3 UNITS
- COMM 104 (NP) Argumentation ..............................................................................3
- COMM 107 (NP) Introduction to Debate ...................................................................3

GROUP AND ORGANIZATIONAL COMMUNICATION AREA- COMPLETE 3 UNITS
- COMM 106 (NP) Group & Organizational Communication ....................................3

PROFESSIONAL SKILLS AREA- COMPLETE 3 UNITS
- COMM 103 (NP) Interpersonal Communication ....................................................3
- COMM 130 (NP) Intercultural Communication .......................................................3

TOTAL UNITS FOR SKILLS RECOGNITION AWARD ..............................................12
COMM 104—ARGUMENTATION 3 UNITS
54 Lecture Hours
Formerly listed as SPCOM 104
Prerequisite: Satisfactory completion of ENGL 101.
Primary emphasis on argumentation as the study of analysis, evidence, reasoning, refutation and rebuttal, etc., in oral and written communication. Significant component of instruction in written argumentation, with special attention to the essay form. “Critical Thinking” approaches to commercial, legal, political, and academic argumentation and persuasion. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) (CC: SPCOM 2) (CID-COMM 120) General Education: (MJC-GE: D2) (CSU-GE: A3) (IGETC: 1B)

COMM 105—INTERCOLLEGIATE FORENSICS 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as: SPCOM 105: Forensics Debate, SPCOM - 105: Forensics Workshop
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete COMM 100 (Formerly SPCOM 100) or satisfactorily complete COMM 102 (Formerly SPCOM 102) or satisfactorily complete COMM 107 (Formerly SPCOM 107) or satisfactorily complete COMM 120 (Formerly SPCOM 120).
Preparation, including research and writing; for participation in intercollegiate speech and debate tournaments and/or community events as a judge and/or competitor. Field trips are required. Four completions allowed. (A-F or P/NP) Transfer: (CSU) (CC: SPCOM 7) Graduation: (MJC: Activities)(CID-COMM 160B)

COMM 106—GROUP & ORGANIZATIONAL COMMUNICATION 3 UNITS
54 Lecture Hours
Also offered as: SUPR 106
Formerly listed as: SPCOM 106: Organizational Communication
Communication within and between groups and organizations while enhancing individual communication skills. Emphasis on communication and organizational theory as basis for focus on such communication processes as task-oriented discussions, problem solving, leadership, conflict resolution and negotiation, communication climate, and organizational culture. Field trips are not required. (A-F or P/NP) Transfer: (CSU) (CC: SPCOM 9) (CID-COMM 140) General Education: (MJC-GE: D2)

COMM 107—INTRODUCTION TO DEBATE 3 UNITS
54 Lecture Hours
Formerly listed as SPCOM 107

COMM 110—PERSUASION 3 UNITS
54 Lecture Hours
Formerly listed as SPCOM 110
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete COMM 100 (Formerly SPCOM 100).
Development of abilities to plan and deliver persuasive presentations through a combination of methods involving the study of “real” communicative events; i.e., trials, sales presentations, political campaigns, sermons, etc., and the preparation and presentation of own works. Survey of recent research in attitude change and persuasive communication. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC)(CID-COMM 190) General Education: (MJC-GE: D2) (CSU-GE: A1)(IGETC: 1C)

COMM 120—ORAL INTERPRETATION 3 UNITS
54 Lecture Hours
Also offered as: THETR 120
Formerly listed as: SPCOM 120: Oral Reading / Interpretation
Skills in oral interpretation of literature; choice of material, involvement with material; communication of author’s thought, emotion and language; expanded knowledge of literature and literary forms. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) (CC: DRAMA 20) (CID-COMM 170) General Education: (MJC-GE: C) (CSU-GE: C1)

COMM 122—INTRODUCTION TO READERS’ THEATRE 3 UNITS
54 Lecture Hours
Also offered as: THETR 122: Introduction to Readers’ Theatre
Formerly listed as SPCOM 122
Study of oral interpretation principles as they apply to group and choral reading. Emphasis will be placed upon the preparation and performance of Readers’ Theatre productions. Students are provided the necessary theory, practice for performance and criticism to enhance skills for development and oral presentation of Readers’ Theatre material. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C1)

COMM 123—STORYTELLING 3 UNITS
54 Lecture Hours
Also offered as: THETR 123: Storytelling
Formerly listed as SPCOM 123
Introduction to the art of storytelling focusing on the preparation and presentation of literature. Emphasis is placed upon selection of materials, analysis, preparation, and presentation of various genres of stories. Designed to develop the adult reader’s knowledge, critical ability and appreciation of literature, as well as critical listening of others sharing literature. Field trips might be required. (A-F or P/NP) Transfer: (CSU) General Education: (MJC-GE: C) (CSU-GE: C1)

COMM 124—ADVANCED READERS’ THEATRE 3 UNITS
54 Lecture Hours
Also offered as: THETR 124: Advanced Readers’ Theatre
Formerly listed as SPCOM 124
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete COMM 122 (Formerly SPCOM 122) or satisfactorily complete THETR 122.
Continued development of the construction and direction of Readers’ Theatre performances suitable for public presentation. Emphasis on analysis of reading materials and helping others enhance communication skills through vocal control and physical expression. Field trips might be required. (A-F or P/NP) Transfer: (CSU) General Education: (MJC-GE: C) (CSU-GE: C1)

COMM 130—INTERCULTURAL COMMUNICATION 3 UNITS
54 Lecture Hours
Formerly listed as SPCOM 130
Examines the influence of culture on human communication. Students will learn skills to communicate effectively with people from different cultures. Theoretical and practical models are explored. Emphasis on cultural identity, relationships, stereotyping, prejudice, nonverbal and verbal cues, values, beliefs, and norms. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) (CC: SPCOM 5) (CID-COMM 150) General Education: (MJC-GE: B) (CSU-GE: D3, D7) (IGETC: 4C,4G)
Computer Applications Specialist PROGRAM

This award is designed for students who will work in a small business performing general computer application procedures such as: document preparation, simple calculations using electronic spreadsheets, or simple database management.

CERTIFICATE OF ACHIEVEMENT: COMPUTER APPLICATIONS SPECIALIST

This award is designed for students who will work in a small business performing general computer application procedures such as: document preparation, simple calculations using electronic spreadsheets, or simple database management.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Apply basic computer hardware, software and information technology concepts and techniques to a variety of business environments.
2. Demonstrate proficiency in applying common business productivity software to business functions, including word processing, spreadsheets, database, and presentation applications.
3. Identify software to be used to address specific business needs.
4. Demonstrate professional and effective communication skills.

REQUIRED COURSES – COMPLETE 18 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>CSCI 201 [1]</td>
<td>General Computer Literacy</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 263 [1]</td>
<td>Internet Literacy</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 223 [2]</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD: 18
CERTIFICATE OF ACHIEVEMENT: ELECTRONICS TECHNOLOGY-COMPUTER ELECTRONICS

PROGRAM LEARNING OUTCOMES
Upon satisfactory completion of this award, the student should be prepared to:
1. Work successfully in the computer service & repair and telecommunication industries.
2. Perform basic computer hardware and telecommunication installations and repairs in accordance with commonly accepted industry practices.

To earn a Certificate of Achievement, the student must complete the coursework below. All required courses must be completed with a C or better.

REQUIRED COURSES - COMPLETE 16 UNITS
ELTEC 208* [1] The World of Electricity and Electronics ....................................................... 3
CMPET 212 [1] Digital Principles and Circuits ........................................................................ 3
CMPET 214 [2,3,4] Microprocessor Programming and Interfacing .................................... 4
CSCI 270 [2] Introduction to Programming ........................................................................... 3

ELECTIVE COURSES - COMPLETE 19 UNITS, AT LEAST 6 IN EACH AREA
ELECTRONICS AREA
CMPET 210 [3,4] Intermediate Personal Computer Servicing ............................................ 3
CMPET 232 [NP] Introduction to Programmable Logic Controllers ................................. 2
CMPET 234 [2,3,4] Advanced Topics in Programmable Logic Controllers ....................... 2
CMPET 269 [2,3,4] Network+ Certification Training Lab ...................................................... 1
ELTEC 221 [2, 3 or 4] Instrumentation Devices and Systems ................................................ 3

COMPUTER AREA
CSCI 271 [3] Problem Solving and Programming 1 ............................................................. 3
CSCI 221 [3,4] Programming with Visual Basic .................................................................. 4
CSCI 273 [4] Assembly Language Programming ................................................................. 4
CSCI 240 [3,4] Networking Essentials ................................................................................. 4
CSCI 213 [3,4] Windows Server OS .................................................................................... 3
CSCI 253 [4] Introduction to Data Warehousing ................................................................. 3
CSCI 223 [3,4] Spreadsheet Software ................................................................................. 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .................. 35

Computer Electronics Courses (CMPET)

CMPET 206—PERSONAL COMPUTER ASSEMBLY 3 UNITS
UPGRADING & REPAIRING
36 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CSCE 201 (formerly CMPSC 201) or concurrently enroll in CSCE 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 3 UNITS
WITH A+ CERTIFICATION TRAINING
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 234 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)

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PROGRAMS AND COURSES

C: COMPUTER ELECTRONICS

Transfer: (CSU)
The Computer Graphics Applications Associate Degree and Certificate program is structured to enable students to pursue a course of study and computer experience in career areas that rely on computer graphics applications. This program is designed to prepare students for employment, transfer to four year institutions, or to allow employees within these industries to upgrade their skills.

**A.S. DEGREE: COMPUTER GRAPHICS APPLICATIONS**

The Computer Graphics Applications Associate Degree program is structured to enable students to pursue a course of study and computer experience in career areas that rely on computer graphics applications. This program is designed to prepare students for employment, transfer to four year institutions, or to allow employees within these industries to upgrade their skills.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Proficiently operate software, hardware, and equipment according to industry standards.
2. Design and develop products and procedures for digital imaging, design, animation, and current and emerging technologies.

To earn an Associate in Science Degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway or the University Preparation Pathway which include completion of the requirements below.

**CERTIFICATE OF ACHIEVEMENT: COMPUTER GRAPHICS APPLICATIONS**

The Computer Graphics Applications Associate Degree and Certificate program is structured to enable students to pursue a course of study and computer experience in career areas that rely on computer graphics applications. This program is designed to prepare students for employment, transfer to four year institutions, or to allow employees within these industries to upgrade their skills.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Design and develop products and procedures for digital imaging, design, animation, and current and emerging technologies.
2. Proficiently operate software, hardware, and equipment according to industry standards.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

**REQUIRED COURSES - COMPLETE 19 UNITS**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ART 120</td>
<td>Basic Drawing 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 124</td>
<td>Color and Design 1</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 202</td>
<td>Introduction to Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 213</td>
<td>Applied Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 215</td>
<td>Business Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 235</td>
<td>Beginning Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 219</td>
<td>Computer Graphics Portfolio Review</td>
<td>1</td>
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**CHOOSE ONE OF THE FOLLOWING AREAS AND COMPLETE 9 UNITS**

**DIGITAL DESIGN- COMPLETE 9 UNITS**

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<tr>
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<tbody>
<tr>
<td>CMPGR 217</td>
<td>Computer Illustration Software</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 252</td>
<td>Desktop Publishing for Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 236</td>
<td>Advanced Photoshop</td>
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**WEBSITE DESIGN- COMPLETE 9 UNITS**

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<tbody>
<tr>
<td>CMPGR 263</td>
<td>Internet Literacy</td>
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<tr>
<td>CMPGR 267</td>
<td>Dreamweaver in Web Site Design</td>
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<tr>
<td>CMPGR 266</td>
<td>Interactive Media Design and Development</td>
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**ANIMATION AND 3-D- COMPLETE 9 UNITS**

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<tbody>
<tr>
<td>CMPGR 225</td>
<td>3D Graphics and Animation</td>
<td>3</td>
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<td>CMPGR 226</td>
<td>3D Graphics and Animation 2</td>
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<tr>
<td>CMPGR 284</td>
<td>Desktop Video Animation</td>
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**TOTAL UNITS FOR A.S. MAJOR**

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<tr>
<th>Units</th>
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**REQUIRED COURSES - COMPLETE 15 UNITS**

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<tbody>
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<td>CMPGR 202</td>
<td>Introduction to Computer Graphics</td>
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</tr>
<tr>
<td>CMPGR 252</td>
<td>Desktop Publishing for Computer Graphics</td>
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**ELECTIVE COURSES - COMPLETE 6 UNITS**

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<tr>
<th>Course Code</th>
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</tr>
<tr>
<td>CMPGR 284</td>
<td>Desktop Video Animation</td>
<td>3</td>
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</table>

**TOTAL UNITS REQUIRED FOR CERTIFICATE OF ACHIEVEMENT AWARD**

<table>
<thead>
<tr>
<th>Units</th>
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<tbody>
<tr>
<td>21</td>
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</table>
### Computer Graphics Applications Courses (CMPGR)

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

36 Lecture Hours, 54 Lab Hours

Also offered as ART 102 - Introduction to Computer Graphics

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.

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. Graduation: (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 215—BUSINESS PRESENTATION GRAPHICS** *(3 UNITS)*

36 Lecture Hours, 54 Lab Hours

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

The use of a computer as a vehicle for preparing, producing, and controlling the presentation of visuals within the business environments. Hardware and peripheral equipment as well as commercially available software will be covered. Emphasis is placed on the use of existing commercially available software with “hands on” experience being provided in an open lab environment. Field trips might be required. (A-F or P/NP) 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 might be required. (A-F or P/NP) Transfer: (CSU)

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

18 Lecture Hours

Also offered as ART 119

### CMPGR 225—3D GRAPHICS AND ANIMATION** *(3 UNITS)*

36 Lecture Hours, 54 Lab Hours

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

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 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 Advanced Photoshop Applications

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 Image Manipulation Software

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

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)
C: COMPUTER GRAPHICS APPLICATIONS / COMPUTER INFORMATION SYSTEMS

CMPGR 252—DESKTOP PUBLISHING FOR COMPUTER GRAPHICS 3 UNITS
36 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files.

Desktop publishing concepts with hands-on training in the use of computers, printers, scanners, and various page-layout applications; text and graphics will be integrated into documents and publications typically used in a range of computer graphics disciplines. Field trips might be required. (A-F or P/NP) Transfer: (CSU)

CMPGR 263—INTERNET LITERACY 3 UNITS
36 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files.

Provides the conceptual background and the online skills needed to become Internet literate. Covers Internet services; e-mail, listserv, newsgroups, FTP, 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 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 CSCI 250.

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:D2)

CMPGR 266—INTERACTIVE MEDIA DESIGN AND DEVELOPMENT 3 UNITS
36 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have a basic working knowledge of personal computers including: turning on and off a computer system correctly; starting programs, moving and resizing windows, the Start Menu, understanding how a computer is organized; manipulating a mouse, including selecting, double clicking, and dragging items; naming, saving, and deleting files; using portable flash memory and other common storage devices.

This course provides students with an introductory and timely exploration of the tools and processes in the design and development of interactive media content. It covers best practices for interactive media content creation, including text, image, animation, audio and video elements as well as copyright issues, and guidelines for accessibility and usability within the work. Field trips might be required. (A-F or P/NP) Transfer: (CSU)

CMPGR 267—DREAMWEAVER IN WEB SITE DESIGN 3 UNITS
36 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files.

Macromedia’s Dreamweaver web design software, including templates, libraries, Cascading Style Sheets, and FTP. Strategies for creating intuitive and accessible web sites such as audience considerations, site map and navigational building, and testing. (A-F or P/NP) Lecture/Lab. Transfer: (CSU)

CMPGR 268—FLASH: WEB GRAPHICS AND ANIMATION 1 3 UNITS
36 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files.

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 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) Graduation: (MJC Activities), Lecture/Lab. 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)

The Business Computer Information Systems program is designed for students who plan to specialize in business computer applications at a four-year college. Students who wish to declare this transfer major should ask for program planning assistance from a business program advisor. Transfer institutions vary in lower division (first two years of college) major department requirements. Meeting the Modesto Junior College Associate Degree major requirements does not necessarily mean a given transfer institution’s major requirements have been met.

A.S. DEGREE: COMPUTER INFORMATION SYSTEMS

The Business Computer Information Systems program is designed for students who plan to specialize in business computer applications at a four-year college. Students who wish to declare this transfer major should ask for program planning assistance from a business program advisor. Transfer institutions vary in lower division (first two
years of college) major department requirements. Meeting the Modesto Junior College Associate Degree major requirements does not necessarily mean a given transfer institution’s major requirements have been met.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate preparedness to successfully continue studies in computer information systems at an upper division level.
2. Demonstrate the techniques of information analysis and application design and implementation for information technology industries.
3. Demonstrate a high level of data organization techniques for information storage and retrieval processes.
4. Use these techniques to model real-world applications.
5. Demonstrate a high level of communication skills.

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below. Students are urged to meet with a Computer Science faculty advisor to assist them plan their specific program for graduation.

REQUIRED COURSES - COMPLETE 21 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 220 (3) Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 201 (2) Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSAD 202 (4) Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSAD 218 (4) Business Law</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 230 (2) Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 232 (4) Database Server Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS IN A.S. MAJOR ............................................................ 21

* Pending State Chancellor’s Office approval (Converting AA degree to AS).

To earn a Certificated of Achievement Award, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES – COMPLETE 13 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 270 (3) Introduction to Programming</td>
<td></td>
</tr>
<tr>
<td>CSCI 271 (3) Problem Solving and Programming 1</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 210 (3) UNIX/Linux OS</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 221 (2) Programming with Visual Basic</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES – COMPLETE 3-4 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 222 (3) Advanced Visual Basic</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 252 (3) Script Programming for the Web</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 272 (3) Problem Solving and Programming 2</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 274 (3) Windows Programming with Visual Studio</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ........................ 16

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**Computer Science PROGRAM**

The Computer Science A.S. Degree program at Modesto Junior College is designed to meet the needs of non-transfer students who wish to acquire the new computer skills needed in today's work environment. The Computer Science program provides students with a general knowledge of computer literacy and information systems, microcomputer hardware and software systems, the ability to work with a wide variety of applications software, and an opportunity to develop programming and problem-solving skills.

Students who wish to major in Computer Science and transfer to a four-year institution should ask for program planning assistance from a business program advisor. Modesto Junior College offers a Computer Science transfer major to meet the major requirement for the associate degree. Transfer institutions vary in lower division (first two years of college) major department requirements. Meeting the Modesto Junior College Associate Degree major requirements does not necessarily mean the transfer institution's major requirements have been met. Consult a Computer Science faculty advisor for assistance in determining the appropriate courses for the major you select.

**A.S. DEGREE: COMPUTER SCIENCE**

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate preparedness to successfully enter local industry as a software programmer, network specialist, or information systems specialist depending of degree option completed.
**C: COMPUTER SCIENCE**

1. **Configure and use computer hardware and software to solve most entry level business application requirements.**
2. **Plan, design, and implement solutions to standard computing problems.**
3. **Make informed assessments of the quality and effectiveness software implementations, including their own.**
4. **Assist and help provide training to employees in local area businesses.**
5. **Demonstrate a high level of communication skills.**

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below. Students are urged to meet with a Computer Science faculty advisor to assist them plan their specific program for graduation.

- **IMPORTANT:** This program is intended to be a Transfer Program guide only. Associate Degree Requirements, general education patterns, and junior standing requirements are subject to change. It is the student's responsibility to consult the catalog for the targeted college/university. Students may consult a business division advisor for a sample four-semester plan and more detailed program-planning guidance.

**REQUIRED OPTION - COMPLETE ONE OPTION FOR 30-33 UNITS**

**INFORMATION SYSTEMS OPTION**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 200</td>
<td>Technical Computer Literacy</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 230</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 220</td>
<td>Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 221</td>
<td>Programming with Visual Basic</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 253</td>
<td>Web Database Development</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 231</td>
<td>Database Programming with SQL</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 233</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 232</td>
<td>Database Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 290</td>
<td>Computer Science Final Project</td>
<td>3</td>
</tr>
</tbody>
</table>

**NETWORKING OPTION**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 270</td>
<td>Introduction to Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 240</td>
<td>Networking Essentials</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 210</td>
<td>UNIX/Linux OS</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 232</td>
<td>Database Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 213</td>
<td>Windows Server OS</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 231</td>
<td>Database Programming with SQL</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 241</td>
<td>Advanced Networking and Security</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 242</td>
<td>Directory Services</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 220</td>
<td>Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 290</td>
<td>Computer Science Final Project</td>
<td>3</td>
</tr>
</tbody>
</table>

**PROGRAMMING OPTION**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 201</td>
<td>General Computer Literacy</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 270</td>
<td>Introduction to Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 271</td>
<td>Problem Solving and Programming 1</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 210</td>
<td>UNIX/Linux OS</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 221</td>
<td>Programming with Visual Basic</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 222</td>
<td>Advanced Visual Basic</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 252</td>
<td>Script Programming for the Web</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 272</td>
<td>Problem Solving and Programming 2</td>
<td>4</td>
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<tr>
<td>CSCI 273</td>
<td>Assembly Language Programming</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 290</td>
<td>Computer Science Final Project</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS IN A.S. MAJOR** 30-33

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**A.A. DEGREE: COMPUTER SCIENCE**

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. **Demonstrate preparedness to successfully continue studies in computer science at an upper division level.**
2. **Demonstrate the techniques of problem solving and programming computer based software development.**
3. **Demonstrate a high level of mathematical reasoning and scientific methodology.**
4. **Use these techniques to model real-world applications.**
5. **Demonstrate a high level of communication skills.**

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below. Students are urged to meet with a Computer Science faculty advisor to assist them plan their specific program for graduation.

- **IMPORTANT:** This program is intended to be a Transfer Program guide only. Associate Degree Requirements, general education patterns, and junior standing requirements are subject to change. It is the student's responsibility to consult the catalog for the targeted college/university. Students may consult a business division advisor for a sample four-semester plan and more detailed program-planning guidance.

**RECOMMENDED PREPARATION - (NOT PART OF MAJOR)**

**OFADM 301** Beginning Keyboarding 1.5 OR Equivalent Keyboarding Skills

**REQUIRED COURSES - COMPLETE 20 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 271</td>
<td>Problem Solving and Programming 1</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 204</td>
<td>Discrete Structures for Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 273</td>
<td>Assembly Language Programming</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 272</td>
<td>Problem Solving and Programming 2</td>
<td>4</td>
</tr>
<tr>
<td>MATH 122</td>
<td>Functions and Analytical Geometry</td>
<td>4</td>
</tr>
<tr>
<td>(Higher Math)</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR A.A. MAJOR** 20

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**Computer Science Courses (CSCI)**

**CSCI 200—TECHNICAL COMPUTER LITERACY** 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 203

Concepts and techniques for using microcomputer applications. Instruction and extensive practice in Windows, word processing, spreadsheets, database management, internet basics, file transfer between applications, and related auxiliary applications. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU)

General Education: (MJC-GE-D2)

**CSCI 201—GENERAL COMPUTER LITERACY** 3 UNITS

36 Lecture Hours, 54 Lab Hours

Formerly listed as CMPSC 201
Survey of the functions and uses of computers in business, education, industry, and science, with emphasis on the personal computer. Study of computers and peripheral equipment as integrated systems. Exploration of the impact of computers on society. Introduction to problem-solving and applications programming techniques. Experience with popular internet and application packages on the laboratory computers. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education: (MJC-GE-D2) (CID-PHIL 210)

CSCI 203 — SYMBOLIC LOGIC 3 UNITS
54 Lecture Hours
Formerly listed as CMPS 103
Also offered as PHIL 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)

CSCI 204 — DISCRETE STRUCTURES FOR COMPUTER SCIENCE 4 UNITS
54 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 219
Prerequisite: Satisfactory completion of CSCI 271 (Formerly CMPS 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) (CID-COMP 152)

CSCI 210 — INTRO TO UNIX/LINUX SYST & PROGRAMMING 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 206
Prerequisite: Satisfactory completion of CSCI 270 (Formerly CMPS 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 scripting, utilities, PERL and CGI programming, C and C++ programming, and recent developments in UNIX and the X-Windows graphical user interface. Extensive hands-on experience using UNIX operating system and programming within the UNIX environment. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) (CC CMPS 9)

CSCI 211 — UNIX/LINUX ADMINISTRATION 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 210
Prerequisite: Satisfactory completion of CSCI 210 (Formerly CMPS 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)

CSCI 213 — WINDOWS SERVER OS 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 264
Prerequisite: Satisfactory completion of CSCI 240 (Formerly CMPS 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)

CSCI 220 — BUSINESS INFORMATION SYSTEMS 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 202
Prerequisite: Satisfactory completion of CSCI 201 (Formerly CMPS 201) or CSCI 270 (Formerly CMPS 204) or CSCI 200 (Formerly CMPS 203).

Introduction to design, development, and use of information system models to improve managerial decision making. Study of information systems hardware and software; advanced computer codes; systems analysis and planning; systems security; application development using decision support systems; and expert systems. Lab work will focus on internet research and advanced spreadsheet, database, and word processor functions for solutions to business problems. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC)(CC CMPS 1) (CID- IT IS 120)

CSCI 221 — PROGRAMMING WITH VISUAL BASIC 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 213
Prerequisite: Satisfactory completion of CSCI 270 (Formerly CMPS 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 CMPS 28) General Education: (MJC-GE-D2)

CSCI 222 — ADVANCED VISUAL BASIC 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 214
Prerequisite: Satisfactory completion of CSCI 221 (Formerly CMPS 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)

CSCI 223 — SPREADSHEET SOFTWARE 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 278
Prerequisite: Satisfactory completion of CSCI 221 (Formerly CMPS 213) with a minimum grade of C or better.

Recommended for Success: Any introductory computer class.

Introduction to spreadsheet software. Spreadsheet analysis, design, testing, and documenting will be covered. (A-F or P/NP) Lecture/Laboratory. Materials fee required. Transfer: (CSU)(CC CMPS 30)
CSCI 224—INTERMEDIATE WORD PROCESSING 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPSC 225
Also offered as: OFADM 231
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)

CSCI 230—DATABASE MANAGEMENT SYSTEMS 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as: CMPSC 275: Database Management Systems/ Microcomputer, CMPSC - 275: Database Management Systems/ Microcomputer
Prerequisite: Satisfactory completion of CSCI 200 (Formerly CMPSC 203) or CSCI 201 (Formerly CMPSC 201) or CSCI 270 (Formerly CMPSC 204).
Introduction to database management systems (DBMS). Instruction on the design, setup and maintenance of a DBMS. Applications in inventory control, mailing lists, report, report construction and format, sorting and indexing operations, general file relationships and information retrieval. Hands-on experience using a microcomputer. Emphasis on desktop DBMS such as Microsoft Access. Field trips might be required. (A-F or P/NP) Transfer: (CSU) (CC CMPSC 55) General Education: (MJC-GE: D2)

CSCI 231—DATABASE PROGRAMMING WITH SQL 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPSC 225 - SQL Database Implementation
Prerequisite: Satisfactory completion of CSCI 230 (Formerly CMPSC 275) or CSCI 270 (Formerly CMPSC 204).
Provides students with the technical skills required to implement a database solution with SQL Server. Topics include: architecture, key features of SQL Server, reviewing SQL Server programming tools, Transact-SQL, creating databases, data integrity, planning and creating indexes, advanced query techniques, summarizing data, managing transactions and locks, implementing views, stored procedures and triggers, working with distributed data, and advanced text queries. (A-F or P/NP) Lecture/Lab. Transfer: (CSU)

CSCI 232—DATABASE SERVER ADMINISTRATION 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPSC 220 - SQL Server Administration
Recommended for Success: Before enrolling in this course, students are strongly advised to have prior experience working with computer server systems or first complete CMPSC 264 – Windows Server OS course.
Provides students with the knowledge and skills required to install, configure, administer, and troubleshoot various SQL Server client/server database management systems. (A-F or P/NP) Lecture/Lab. Transfer: (CSU)

CSCI 240—NETWORKING ESSENTIALS 4 UNITS
54 Lecture Hours, 54 Lab Hours
Formerly listed as CMPSC 263
Prerequisite: Satisfactory completion of CSCI 201 (Formerly CMPSC 201).

Concepts of networking technologies. Includes networking standards and the OSI model, transmission basics and media, TCP/IP protocol, 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)

CSCI 241—ADVANCED NETWORKING & SECURITY 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPSC 281
Prerequisite: Satisfactory completion of CSCI 213 (Formerly CMPSC 264).
Technical study of security for networks. Includes assessing security risks, planning administrative access and user accounts, securing communication channels, securing file and print resources, secure access to remote users and offices, secure network access to Internet users, extending the network to partner organizations, designing a public key infrastructure, and developing a security plan. Hands-on computer assignments required. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU)

CSCI 242—DIRECTORY SERVICES 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPSC 289
Recommended for Success: Before enrolling in this course, students are strongly advised to either complete CSCI 213 (Formerly CMPSC 264), Windows Server, or have experience managing business server systems.
Technical study of Directory Services using tools such as LDAP and Active Directory. Includes the design and implementation of directory services, analyzing business requirements, information technology structures, software, hardware and network requirements, large and small scale directory services design, group policy design, design topology and locations, replication and disaster recovery. Hands-on computer assignments required. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU)

CSCI 250—PUBLISHING ON THE WORLD WIDE WEB 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPGR 264

CSCI 252—SCRIPT PROGRAMMING FOR THE WEB 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPSC 216 - Javascript Programming for the Internet
Prerequisite: Satisfactory completion of CSCI 270 (Formerly CMPSC 204).
Developing World Wide Web applications with HTML and scripting tools such as python, javascript, ruby and perl. An introduction to creating interactive HTML documents through manipulation of the WWW DOM (Document Object Model). Designing Web-based applications, validating and processing user input, creating dynamic documents utilizing DHTML. Extensive programming projects demonstrating problem solving and implementation skills will be assigned throughout the semester.
Hands-on computer assignments required. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)

CSCI 253 — WEB DATABASE DEVELOPMENT 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 276 — Introduction to Data Warehousing
Prerequisite: Satisfactory completion of CSCI 230 (Formerly CMPS 275) or CSCI 231 (Formerly CMPS 225) or CSCI 232 (Formerly CMPS 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)

CSCI 270 — INTRODUCTION TO PROGRAMMING 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 204
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)

CSCI 271 — PROBLEM SOLVING AND PROGRAMMING 1 4 UNITS
54 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 205
Prerequisite: Satisfactory completion of CSCI 270 (Formerly CMPS 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 CMPS 22) General Education: (MJC-GE: D2) (CID-COMP 122)

CSCI 272 — PROBLEM SOLVING AND PROGRAMMING 2 4 UNITS
54 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 261
Prerequisite: Satisfactory completion of CSCI 271 (Formerly CMPS 205).
Introduction to data structures implemented using object-oriented design. Includes more advanced features of high-level languages such as: C++, 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 CMPS 24) General Education: (MJC-GE: D2) (CID-COMP 132)

CSCI 273 — ASSEMBLY LANGUAGE PROGRAMMING 4 UNITS
54 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 241
Prerequisite: Satisfactory completion of CSCI 271 (Formerly CMPS 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) (CID-COMP 142)

CSCI 274 — WINDOWS PROGRAMMING WITH VISUAL STUDIO 4 UNITS
54 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 291 - Windows Programming With Visual C++
Prerequisite: Satisfactory completion of CSCI 271 (Formerly CMPS 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)

CSCI 290 — COMPUTER SCIENCE FINAL PROJECT 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as CMPS 294
Limitations on Enrollment: The students are required to bring the skills of their individual specializations, based on their 18 Hours of coursework in either Information Systems, Networking, or Programming to form teams and solve a collaborative real-world IT industry level of problem application. Culminating experience for students pursuing an Associate of Science degree in Computer Science. Objectives of degree courses will be integrated into a final managed project advised by one or more Computer Science faculty. Effective project and team management will be emphasized. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU)

CSCI 298A,B,C — SPECIAL TOPICS IN COMPUTER SCIENCE 1,2,3 UNITS
A=18 Lecture Hours, B=36 Lecture Hours, C=54 Lecture Hours
Formerly listed as CMPS 298A,B,C
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. Field trips may be required. Lecture. Materials fee required. Transfer: (CSU)

Dance Courses, see (THETR) or (PEC)

For dance course descriptions, please see THETR (Theatre) or PEC (Physical Education: Co-Ed Activities).
E: EARTH SCIENCE / ECONOMICS

Earth Science Program

A.S. Degree: University Preparation, Emphasis in Earth Sciences

About This Emphasis
The study of earth science focuses on the physical, chemical, and biological aspects of the natural processes that govern natural resources, natural hazards, weather, and climate of the Earth system. Students should consult with a counselor or visit www.ASSIST.org for more information on university admission and transfer requirements.

Program Learning Outcomes
Upon satisfactory completion of this award, the student should be prepared to:

1. Identify, describe, and explain the causes and consequences of the various physical processes that transfer energy into, within, and out of the Earth system.
2. Identify, describe, and explain the causes and consequences of the various chemical processes that control the transformation of matter within the Earth system.
3. Identify, describe, and explain the causes and consequences of the various interactions between the biosphere and the physical components of the Earth system.

Emphasis Requirements
To earn an Associate in Science Degree with this emphasis, the student must complete the requirements detailed in the University Preparation Pathway (p. 97) which include completion of the requirements below. See advisor for selection of courses.

Required Courses: Complete 23 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EASCI 161</td>
<td>Earth Science</td>
<td>4 OR</td>
</tr>
<tr>
<td>GEOL 161</td>
<td>Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 166</td>
<td>Historical Geology</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>General Physics: Mechanics</td>
<td>5 OR</td>
</tr>
<tr>
<td>PHYS 142</td>
<td>Mechanics, Heat, &amp; Waves</td>
<td>5</td>
</tr>
<tr>
<td>MATH 171</td>
<td>Calculus: First Course</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>General Chemistry 1</td>
<td>5</td>
</tr>
</tbody>
</table>

Elective Courses: Complete 8 Units

- Please refer to www.assist.org for your chosen transfer university and specific major, and use that information to select at least eight units from the following list of electives. Additional courses may be required by your transfer university.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 200</td>
<td>Soil</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 142</td>
<td>Mechanics, Heat, &amp; Waves</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>General Chemistry 1</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 171</td>
<td>History of the Earth</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>General Chemistry 1</td>
<td>5</td>
</tr>
<tr>
<td>GEO 171XAB</td>
<td>Geology Field Studies</td>
<td>0.5 - 2</td>
</tr>
<tr>
<td>GEOL 174</td>
<td>Geology Summer Field Studies</td>
<td>3</td>
</tr>
<tr>
<td>MATH 172</td>
<td>Calculus: Second Course</td>
<td>5</td>
</tr>
<tr>
<td>METEO 161</td>
<td>Introduction to Meteorology</td>
<td>4</td>
</tr>
<tr>
<td>NR 200</td>
<td>Soil</td>
<td>4</td>
</tr>
<tr>
<td>zooll 101</td>
<td>General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 143</td>
<td>Electricity, Magnetism, Optics, Atomic and Nuclear Structures</td>
<td>4 OR</td>
</tr>
<tr>
<td>ZOOLL 101</td>
<td>General Zoology</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units in A.S. Major: 31

*Conversion of this degree from an AA to an AS is currently pending approval from the California Community Colleges Chancellor's Office.

Earth Science Courses (EASCI)

EASCI 161 — Earth Science  4 Units
54 Lecture Hours, 54 Lab Hours
An introductory study of the several branches of Earth science: geology, oceanography, meteorology, and astronomy. 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) (CID-GEOL 121)

EASCI 162 — Introduction to Oceanography  4 Units
54 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EASCI 161 and satisfactorily complete MATH 70.

An introductory study of oceanography, the study of the world’s oceans. Topics include the oceans’ 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)

Economics Courses (ECON)

ECO 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: B2) (CSU-GE: D2) (IGETC: 4B) (CID-ECON 202)
**ECON 102—PRINCIPLES OF MICROECONOMICS** 3 UNITS

54 Lecture Hours

Formerly listed as: ECON 102: Economic Principles: Microeconomics

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

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

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

**ECON 115—ECONOMIC HISTORY OF THE UNITED STATES** 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily 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) (IGETC: 4B) (CID-ECON 201)

**ECON 102—PRINCIPLES OF MICROECONOMICS** 3 UNITS

54 Lecture Hours

Formerly listed as: ECON 102: Economic Principles: Microeconomics

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

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

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

**ELTEC 205—ELECTRONICS FABRICATION AND ASSEMBLY TECHNIQUES** 3 UNITS

36 Lecture Hours, 54 Lab Hours

Introduction to fabrication and assembly techniques used in the electronics industry. Soldering, circuit board repair, and component identification, manual and automated techniques used in circuit assembly and product manufacture are included. Materials fee required. Field trips are not required. (A-F or P/NP) 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 DAS Electricians Training program. Materials fee required. (A-F or P/NP) Transfer: (CSU) General Education: (MJC-GE: A)

**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 satisfactorily complete ELTEC/CMPET 212 Digital Electronics.

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 Only) Lecture/Lab. Transfer: (CSU)

**ELTEC 221—INSTRUMENTATION DEVICES AND SYSTEMS** 3 UNITS

36 Lecture Hours, 54 Lab Hours

Also offered as INTEC 221: Instrumentation Devices and Systems

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 222—INDUSTRIAL ELECTRICAL COMPONENTS AND CONTROL DEVICES** 3 UNITS

36 Lecture Hours, 54 Lab Hours

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 208 with a minimum grade of C or better.

An introduction to AC and DC motors and control systems. Emphasis on system troubleshooting. Use and programming of AC and DC systems. Field trips might be required. (A-F Only) Transfer: (CSU)
ELTEC 229—COMMERCIAL AND INDUSTRIAL WIRING 3.5 UNITS
18 Lecture Hours, 54 Lab Hours
Also offered as CMPET 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).

This course is approved by the state of California for the DAS Electrical Trainee Program. (A-F or P/NP) Lecture/Lab. Transfer: (CSU)

ELTEC 230—BLUEPRINT READING FOR ELECTRICIANS 2 UNITS
18 Lecture Hours
Formerly listed as: ELTEC 230: Blueprint Reading For Electricians
Analysis of electrical blueprints and other types of related schematics such as projections, themes of construction blueprints, machinery, schematics of control and instrumentation. Intended for electricians, electrical apprentices, and technical students. Reading and interpretation of electrical blueprints, and how to sketch simple electrical installation or control diagrams. Field trips are not required. (A-F Only) Lecture/Lab. 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 300—SURVEY OF APPLIED TECHNOLOGIES 3 UNITS
36.00 Lecture Hours, 54.00 Lab Hours
Also offered as: INTEC 300
Survey of applied technologies in the Advance Manufacturing, Transportation, or Construction Industry. Topics include electricity, small engines/industrial mechanics, common computer software and robotics. Field trips might be required. (A-F Only)

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.

Emergency Medical Service Courses (EMS)

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 0.5 UNITS
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  1.5 UNITS
27 Lecture Hours

Prerequisite: Satisfactory completion of EMT 390 or equivalent.

Provides new and updated information for the Emergency Medical Technician, as well as reinforcement of basic knowledge and skills. Meets requirements for re-certification as an EMT in California. Lecture. (A-F Only)

Skills Recognition: Emergency Medical Technician

EMS 390: Emergency Medical Technician (EMT) 1 prepares students for certification as an Emergency Medical Technician I in the State of California. This one semester, 6 unit course is offered year round. EMT 390 is a comprehensive course that includes classroom instruction, laboratory, and clinical experience. Students are trained to provide emergency care (basic life support level) as an emergency medical service responder (police, fire, ambulance, ranger, rescue squad or industrial emergency operations). Additional lab and clinical hours are required. Contact the Regional Fire Training Center at (209) 548-5706.

Program Learning Outcomes

Upon satisfactory completion of this award, the student should be prepared to:
1. Pass the National Registry Exam for certification as an Emergency Medical Technician.
2. Demonstrate compliance with regulations of the National Registry of Emergency Medical Technician.

Course expenses vary for each individual. The estimated cost for EMS 390 is $250-450 which includes enrollment and materials fees, health clearance, books, and certification examination. For information on Financial Aid, call (209) 575-7700.

To earn a Skills Recognition Award, the student must complete the following required course with a grade of C or better.

EMS 390 (NP) Emergency Medical Technician 1 ................................................. 6

Total Units for Skills Recognition Award .......................................................... 6

Policy for Denial of Certification

The law provides for denial of certification for crimes or acts that may in any way be related to pre-hospital medical care i.e., sex crimes, drug crimes and crimes of violence or dishonesty. In such cases it is the applicant’s responsibility to present sufficient evidence of rehabilitation to the Mountain-Valley Emergency Medical Services Agency prior to applying for certification. The Mountain-Valley EMS Agency will evaluate applicants individually. Any student considering a career as an Emergency Medical Technician, who might be denied certification, is advised to address this issue with this Agency prior to taking this course.

Mountain-Valley Emergency Medical Services Agency

1101 Standiford Ave., Suite D1

Modesto, CA 95350

(209) 529-5085

Engineering Courses (ENGR)

ENGR 127—ENGINEERING GRAPHICS  4 UNITS
36 Lecture Hours, 108 Lab Hours

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

Development of graphics skills for engineering drawings with the use of computer-aided-drafting (CAD) software. Topics include orthographic and pictorial projections, section and auxiliary views, dimensioning, tolerancing, threaded fasteners, and working drawings. Introduction to 3D modeling and engineering design. Design project required. (A-F or P/NP) Lecture/Laboratory. Transfer: (CSU, UC)

English as a Second Language Courses (ESL)

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: 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.
E: ENGLISH AS A SECOND LANGUAGE

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 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 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. Attention paid to rhythm, intonation, stress, reductions, linking, and focus shift of English. Beginning aural comprehension of simplified structures in reading, writing, listening, and speaking. Lecture. Field trips may be required. (A-F or P/NP).

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
36 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 24 or qualification by the MJC assessment process.
Practice in reading and writing for students at the low-intermediate (second-semester) level. Significant homework may be assigned to a lab. Field trips may be required. (A-F or P/NP) Lecture.
ESL PATHWAYS

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>ESL for College</th>
<th>ESL for Life and Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEGINNING ENGLISH LEARNER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Beginning</td>
<td>ESL 10</td>
<td>ESL 1</td>
</tr>
<tr>
<td>High Beginning</td>
<td>ESL 20 + ESL 24</td>
<td>ESL 2</td>
</tr>
<tr>
<td>Low Intermediate</td>
<td>ESL 30 + ESL 34</td>
<td>ESL 3</td>
</tr>
<tr>
<td>High Intermediate</td>
<td>ESL 40 + ESL 44</td>
<td>ESL 4</td>
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<tr>
<td>Advanced</td>
<td>ESL 47 + ESL 48</td>
<td>ESL 5</td>
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<tr>
<td>Beginning Language Learner</td>
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<tr>
<td>No first-language translation</td>
<td>ESL 10 Assessment Examination</td>
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<tr>
<td><strong>ESL 40—ENGLISH LANGUAGE 4</strong></td>
<td>5 UNITS</td>
<td>5 UNITS</td>
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<tr>
<td>90 Lecture Hours</td>
<td></td>
<td>90 Lecture Hours</td>
</tr>
<tr>
<td>Prerequisite: Placement in ESL 40 through assessment process or satisfactory completion of ESL 30 or equivalent course.</td>
<td></td>
<td>Prerequisite: Satisfactory completion of ESL 30 and ESL 34 or qualification by the MJC assessment process.</td>
</tr>
<tr>
<td>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.</td>
<td>Recommended for Success: Before enrolling in this course, students are strongly advised to be concurrently enrolled in ESL 40.</td>
<td></td>
</tr>
</tbody>
</table>

| **ESL 44—ENGLISH COMPOSITION AND READING 3**| 5 UNITS         |
| 90 Lecture Hours             | 90 Lecture Hours |
| Prerequisite: Satisfactory completion of ESL 30 and ESL 34 or qualification by the MJC assessment process. | Prerequisite: Placement in ESL 45 through assessment process or satisfactory completion of ESL 40 or equivalent course. |
| Recommended for Success: Before enrolling in this course, students are strongly advised to be concurrently enrolled in ESL 40. | 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) |

**BEGINNING LANGUAGE LEARNER**

**GRAMMAR**

**READING/COMPOSITION**

**SPOKEN ENGLISH**

**INTEGRATED SKILLS IN LISTENING/SPEAKING/READING/Writing/Learning**

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To earn an associate degree and/or transfer to a four-year university

**ENGLISH AS A SECOND LANGUAGE PROGRAMS AND COURSES**

**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 44—ENGLISH 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 901—ESL: BEGINNING ENGLISH FOR LIFE AND WORK
90 Lecture Hours
Formerly listed as ESL 901 - ESL: Beginning
Beginning English for non-English speakers. Emphasis on beginning spoken English and basic literacy. Unlimited repeats. Field trips 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
Elementary English with emphasis on spoken English for practical needs and preparation for transition into academic ESL classes. Unlimited repeats. 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.

ESL 904—ESL: INTERMEDIATE ENGLISH FOR LIFE AND WORK
90 Lecture Hours
Formerly listed as ESL 904 - ESL: Intermediate
Prerequisite: Satisfactory completion of ESL 903 or qualification by the MJC assessment process.
Intermediate level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with a greater emphasis on academic preparation. Unlimited repeats. Field trips may be required. (Non-Graded course) Lecture.

ESL 905—ESL: HIGH INTERMEDIATE ENGLISH FOR LIFE AND WORK
90 Lecture Hours
Formerly listed as ESL 905 - ESL: High Intermediate
Prerequisite: Satisfactory completion of ESL 904 or qualification by the MJC assessment process.
High intermediate level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with a greater emphasis on academic and workforce preparation. Unlimited repeats. Field trips may be required. (Non-Graded course) Lecture.

ESL 906—ESL: LOW ADVANCED ENGLISH FOR LIFE AND WORK
90 Lecture Hours
Formerly listed as ESL 906 - ESL: Low Advanced
Prerequisite: Satisfactory completion of ESL 905 or qualification by the MJC assessment process.
Low advanced level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with great emphasis on transition to academic programs, the workplace, and job-training courses. Unlimited repeats. Field trips may be required. (Non-Graded course) Lecture.

ESL 46—ESL COMPOSITION AND READING 4
5 UNITS
90 Lecture Hours
Prerequisite: Satisfactory completion of ESL 45 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 49—ENGLISH LANGUAGE 7
5 UNITS
90 Lecture Hours
Prerequisite: Placement in ESL 49 through assessment process or satisfactory completion of ESL 46 or equivalent course.
Continuation of ESL 48. 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 50—ENGLISH LANGUAGE 8
5 UNITS
90 Lecture Hours
Prerequisite: Placement in ESL 50 through assessment process or satisfactory completion of ESL 49 or equivalent course.
Continuation of ESL 49. 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)
literature, ethnic literatures, folklore, and children’s literature. The program also offers creative writing courses in poetry, fiction, and script writing. English majors choose to take survey, writing, and literature courses based upon their areas of interest, but they should include a balanced load of genre and survey courses. Many students who become English majors at four-year colleges and universities are required to take introductory survey courses in American and British literature (ENGL 135, ENGL 136, ENGL 137, and ENGL 138). However, prospective English majors and minors are strongly urged to discuss their plans with MJC counselors and English faculty advisors regarding the specific lower-division requirements at the four-year colleges and universities they plan to attend.

**A.A.-T Degree: English**

The Associate in Arts in English for Transfer (AA-T in English) degree includes lower division coursework that is required for transfer. The Associate in Arts in English for Transfer (AA-T in English) is designed for those who love to read, write, interpret, and create. A baccalaureate degree in English can lead to a career in teaching as well as in professional fields such as law, medicine, publishing, information science, and business. The English program includes survey courses in English, American, and world literature; introductory genre courses in poetry, fiction, and drama; and a number of topical courses such as Shakespeare, Bible as literature, ethnic literature, folklore, and children’s literature. The program also offers creative writing courses in poetry and fiction.

The Associate in Arts in English for Transfer (AA-T in English) degree is intended for students who plan to complete a bachelor’s degree in English at a California State University campus. Students completing this degree are guaranteed admission to the CSU System, but not to a particular campus or major. Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Read, comprehend, and evaluate a variety of texts and various forms of media.
2. Write clear, organized work in a style suited for its purpose and audience.
3. Create professional-looking written work that shows careful editing and properly document sources.
4. Demonstrate an appreciation of literature by reading and analyzing works from various genres, periods, and cultures.

The following is required for the Associate in Arts in English for Transfer degree:

1. Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
   - The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements.
   - A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
2. Obtainment of a minimum grade point average of 2.0. All courses within the major must be completed with a C or better.

* Note: Double counting courses in GE and the major is permissible. Guidance and Activities requirements are not required for this degree.

**REQUIRED CORE: 6 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL 105</td>
<td>Creative Writing: Poetry</td>
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<tr>
<td>ENGL 106</td>
<td>Creative Writing: Short Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 108</td>
<td>Creative Writing: Autobiography</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 112</td>
<td>Introduction to the Novel and Short Story</td>
<td>3</td>
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<td>ENGL 114</td>
<td>Introduction to Poetry</td>
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<tr>
<td>ENGL 116</td>
<td>Introduction to Drama</td>
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<tr>
<td>ENGL 151</td>
<td>Folklore</td>
<td>3</td>
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<tr>
<td>ENGL 163</td>
<td>Intro to Shakespeare</td>
<td>3</td>
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<tr>
<td>ENGL 171</td>
<td>Intro to African-American Literature</td>
<td>3</td>
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<tr>
<td>ENGL 176</td>
<td>Intro to Mexican Literature</td>
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</tr>
<tr>
<td>ENGL 179</td>
<td>Intro to Native American Lit., Mythology, &amp; the Oral Tradition</td>
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**LIST A: (SELECT TWO) 6 UNITS**

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<th>Course Code</th>
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<tr>
<td>ENGL 135</td>
<td>Survey of American Literature to 1850</td>
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<td>ENGL 136</td>
<td>Survey of American Literature: 1850 to the Present</td>
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</tr>
<tr>
<td>ENGL 137</td>
<td>Survey of English Literature to the late 18th Century</td>
<td>3</td>
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<tr>
<td>ENGL 138</td>
<td>Survey of English Literature: Late Eighteenth Century to Present</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 131</td>
<td>Intro to World Literature 1</td>
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<tr>
<td>ENGL 132</td>
<td>Intro to World Literature 2 (1500 to Present)</td>
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**LIST B: (SELECT ONE) 3 UNITS**

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<tr>
<th>Course Code</th>
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<td>ENGL 102</td>
<td>Advanced Composition &amp; Introduction to Literature</td>
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<tr>
<td>ENGL 103</td>
<td>Advanced Composition &amp; Critical Thinking</td>
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**LIST C: (SELECT ONE) 3 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>ENGL 156</td>
<td>The Bible As Literature: The Hebrew Canon &amp; Intertestamental Writings</td>
<td>3</td>
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<tr>
<td>ENGL 157</td>
<td>The Bible As Literature: The New Testament</td>
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<td>ENGL 161</td>
<td>Film Appreciation</td>
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<td>ENGL 162</td>
<td>History of Cinema</td>
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<td>ENGL 168</td>
<td>Adolescent Literature</td>
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<td>ENGL 169</td>
<td>Children’s Literature</td>
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<td>ENGL 172</td>
<td>Intro to Chicano/a Literature</td>
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<tr>
<td>ENGL 173</td>
<td>Intro to Latin American Literature</td>
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<tr>
<td>ENGL 175</td>
<td>Introduction to Women’s Literature</td>
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**TOTAL UNITS REQUIRED IN A.A.-T MAJOR**

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**TOTAL UNITS THAT MAY BE DOUBLE-COUNTED**

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**GENERAL EDUCATION (CSU GE OR IGETC) UNITS**

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**ELECTIVE (CSU TRANSFERABLE) UNITS**

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**TOTAL DEGREE UNITS (MAXIMUM)**

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<tr>
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<tr>
<td>60</td>
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</table>
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 some 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 might be required. (A-F or P/NP) (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) (C-ID-ENGL 100)

ENGL 102—ADVANCED COMPOSITION & INTRODUCTION TO LITERATURE  3 UNITS
54 Lecture Hours
Formerly listed as: ENGL 102: Advanced Comp and Intro to Lit
Prerequisite: Satisfactory completion of ENGL 101.
Advanced composition with an introduction to literary analysis of fiction, poetry, and drama. Intended primarily for university transfer students, but open to any qualified student. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) (CC: ENGL 1B) General Education: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B) (C-ID-ENGL 120)

ENGL 103—ADVANCED COMPOSITION & CRITICAL THINKING  3 UNITS
54 Lecture Hours
Formerly listed as: ENGL 103: Adv Comp & Critical Thinking
Prerequisite: Satisfactory completion of ENGL 101.
Advanced composition course that focuses on the techniques and principles of argumentation and offers instruction in analytical evaluation of texts, research strategies, and proper documentation. Examines style, diction, inference, evidence, reasoning, and rhetorical strategies of written argument. 8,000 word writing requirement, at least 6,000 of which must be in essays that have a developed thesis. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) (CC: ENGL 1C) General Education: (MJC-GE: D2) (CSU-GE: A3) (IGETC: 1B) (C-ID-ENGL 105)

ENGL 105—CREATIVE WRITING: POETRY  3 UNITS
54 Lecture Hours
Prerequisite: Satisfactory completion of ENGL 101 with a minimum grade of C or better.
Instruction and practice in writing poetry. (A-F or P/NP) Lecture 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. Graduation: (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. Graduation: (MJC: Activities). Transfer: (CSU, UC)

ENGL 111—CREATIVE WRITING: CREATIVE NONFICTION  3 UNITS
54.00 Lecture Hours
Prerequisite: Satisfactory completion of ENGL 101.
Instruction and practice in writing Creative Nonfiction, also known as Literary Nonfiction, with an emphasis on the personal essay. Field trips might be required. (A-F or P/NP) Transfer: (CSU) General Education: (MJC-GE: C)
ENGL 112—INTRODUCTION TO THE NOVEL AND SHORT STORY 3 UNITS
54 Lecture Hours
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
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
54 Lecture Hours
Formerly listed as: ENGL 131: Introduction to World Literature to 1500
Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and satisfactorily complete ENGL 102.
A comparative study of selected works, in translation and in English, of literature, including works from Asia, the Middle East, Europe, and other areas, from antiquity to the mid-seventeenth century. Field trips might be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: C)(CSU-GE: C2)(IGETC: 3B)(CID-ENGL 140)

ENGL 132—INTRODUCTION TO WORLD LITERATURE 2 (1500 TO PRESENT) 3 UNITS
54 Lecture Hours
Formerly listed as: ENGL 132: Introduction to World Literature (1500 to Present)
Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and satisfactorily complete ENGL 102.
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)(CID-ENGL 145)

ENGL 135—SURVEY OF AMERICAN LITERATURE TO 1850 3 UNITS
54 Lecture Hours
Formerly listed as: ENGL 135: American Literature to 1850
Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and satisfactorily complete ENGL 102.

ENGL 136—SURVEY OF AMERICAN LITERATURE: 1850 TO THE PRESENT 3 UNITS
54 Lecture Hours
Formerly listed as: ENGL 136: American Literature: 1850 to the Present
Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and satisfactorily complete ENGL 102.
Survey of American literature from mid-nineteenth century to the present. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C)(CSU-GE: C2)(IGETC: 3B)(CID-ENGL 135)

ENGL 137—SURVEY OF ENGLISH LITERATURE TO THE LATE 18TH CENTURY 3 UNITS
54 Lecture Hours
Formerly listed as: ENGL 137: Survey of English Literature to the 18th Century, ENGL - 137: Survey of English Literature to the 18th Century
Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and satisfactorily complete ENGL 102.
Survey of English literary history from the Anglo-Saxons to the late Eighteenth Century with detailed study of the writings of Chaucer, Marlowe, Spenser, Shakespeare, Milton, and others. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C)(CSU-GE: C2)(IGETC: 3B)(CID-ENGL 160)

ENGL 138—SURVEY OF ENGLISH LITERATURE: LATE EIGHTEENTH CENTURY TO PRESENT 3 UNITS
54 Lecture Hours
Formerly listed as: ENGL 138: Survey of English Lit: 18th Century to Present, ENGL - 138:
Survey of English Literature: 1700 - Present
Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and satisfactorily complete ENGL 102.
This course examines major works of British literature from the late eighteenth century to the post-colonial and contemporary time. The study includes multiple genres with texts of literary, historical, and cultural importance and impact. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C)(CSU-GE: C2)(IGETC: 3B)(CID-ENGL 163)
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 might be required. (A-F or P/NP) 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 166—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. Introduces representative works from a variety of ethnic and cultural sources, including storytelling. Develops students' close reading and analytical writing skills. Develops appreciation for aesthetic qualities of children’s literature. Field trips might be required. (A-F or P/NP) 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) (CID-ENGL 180)

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—INTRODUCTION 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. Study of traditional and contemporary Native American literature, oral traditions, and myths from a variety of nations, including some local Native American peoples. Relationship of contemporary writing to earlier cultural heritage. Place of Native American literature in the American literary tradition and canon. Close reading of contemporary autobiography, novels, short fiction and non-fiction, and poetry. Field trips might be required. (A-F Only) 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: indigenous legends, 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 might be required. (A-F Only) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C2)(IGETC: 3B)

Program Learning Outcomes

Upon satisfactory completion of this award, the student should be prepared to:

1. List at least five career opportunities in the horticulture industry, both locally and within the State of California and the United States.
2. Demonstrate general nursery practices of the industry, including transplanting, plant identification, identification of health related issues, and general horticulture practices necessary to be successful in the horticulture industry.
3. Identify 300 plants found in the Central Valley of California and describe the cultural characteristics, as well as growth habits, for each.
4. Demonstrate good work habits and inter-personal communication skills that employers demand.

Major Requirements

To earn an Associate in Science Degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway or the University Preparation Pathway which include completion of the requirements below.

I. Agriculture Career Courses – Complete 5 Units
AG 115 * [ 1 ] Introduction to Agricultural Education & Careers .................................1
AG 249 ** [ 4 ] Agriculture Internship ............................................................................ 2 OR
AG 349ABCD [NP] Work Experience Agriculture - Supervised Practice .......................... 1 - 4

II. Agriculture Science Breadth Courses – Complete 6 Units
ANSC 200 [NP] Introduction to Animal Science ..............................................................3
NR 200 [NP] Soils ..............................................................................................................4
AGM 200 [NP] Introduction to Mechanical Technology ..................................................3
AGEC 225 [NP] Agriculture Computer Applications .......................................................3 OR
AGEC 2130 [NP] Elements of Agricultural Economics ..................................................3 OR
AGEC 200 [NP] Agricultural Accounting and Analysis ...................................................3

III. Agriculture Major Courses – Complete 12 Units
PLSC 200 [NP] Introduction to Plant Science .................................................................3
EHS 201 [NP] Plant Identification & Usage 1 .................................................................3
EHS 202 [NP] Plant Identification & Usage 2 .................................................................3
EHS 210 [NP] Introduction to Environmental Horticulture Science ..............................3

Program and Courses
IV. AGRICULTURE MAJOR ELECTIVES – COMPLETE 7 UNITS

AGM (ANY) Any class listed in Mechanized Agriculture ........................................... 1 - 4
EHS 212 [NP] Floriculture Crop Production ................................................................. 3
EHS 215 [NP] Landscape Design .............................................................................. 3
EHS 220 [NP] Turfgrass Management .................................................................. 3
EHS 235 [NP] Plant Propagation/Production ............................................................. 3
EHS 250 [NP] Landscape Irrigation ........................................................................ 3
EHS 276 [NP] Landscape Maintenance .................................................................. 3
EHS 278 [NP] Landscape Construction and Installation ........................................ 3
EHS 280 [NP] Beginning Floral Design .................................................................. 3
EHS 281 [NP] Advanced Floral Design ................................................................ 3
NR 221 [NP] Native Tree and Shrub Identification .................................................... 3
PLSC 250 [NP] Plant Nutrition and Fertilizer ........................................................... 3
PLSC 260 [NP] Plant Disease Control ................................................................... 3

TOTAL UNITS .......................................................................................................... 30

*Required
**Internship/Work Experience must be Agriculture related.

Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking Ag 349D, or a combination of AG 349A-C, or a combination of AG 349A-D.

**Pending State Chancellor’s Office approval.

CERTIFICATE OF ACHIEVEMENT: COMMERCIAL FLORISTRY TECHNICIAN

The Commercial Floristry Program prepares students to enter the field of Floral Design and Flower Shop Management. The program is designed to provide entry level skills, and further, to prepare students for advancement within this ever-changing and dynamic industry.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate good work habits and inter-personal communication skills that employers demand.
2. Identify 300 plants found in the Central Valley of California and describe the cultural characteristics, as well as growth habits, for each.
3. Demonstrate general nursery practices of the industry, including transplanting, plant identification, identification of health related issues, and general horticulture practices necessary to be successful in the horticulture industry.
4. Demonstrate general nursery practices of the industry, including transplanting, plant identification, identification of health related issues, and general horticulture practices necessary to be successful in the horticulture industry.

PROGRAM REQUIREMENTS

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

AG 115 [1] Introduction to Agricultural Education & Careers ...................................... 1
AG 349A-B-C-D [NP] Work Experience Agriculture - Supervised Practice ............ 4 OR
AG 249 ** [NP] Agriculture Internship .................................................................... 2

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

PLSC 200 [1] Introduction to Plant Science ............................................................. 3
NR 200 [NP] Soils .................................................................................................... 4
AGM 200 [NP] Introduction to Mechanical Technology .......................................... 3
AGEC 225 [NP] Agriculture Computer Applications .............................................. 3

III. AGRICULTURE MAJOR COURSES- COMPLETE 21 UNITS

EHS 201 [1, 2] Plant Identification & Usage 1 ......................................................... 3
EHS 210 [1] Introduction to Environmental Horticulture ....................................... 3
EHS 280 [1] Beginning Floral Design .................................................................. 3
EHS 281 [2, 3, 4] Advanced Floral Design .............................................................. 3
AGEC 280 [4] Agricultural Sales and Service ......................................................... 3
COMM 102 [1] Introduction to Human Communication .......................................... 3
PLSC 255 [NP] Plant Pest Control ........................................................................ 4 OR

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ..................... 35

**Required

CERTIFICATE OF ACHIEVEMENT: LANDSCAPE AND PARK MAINTENANCE

In this program the student will develop skills in identifying, using, propagation, planting, and maintenance of ornamental plants and materials used in landscaping. Contact the division office in the Agriculture Building for advising assistance.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. List at least five career opportunities in the horticulture industry, both locally and within the State of California and the United States.
2. Demonstrate general horticulture practices of the industry, including transplanting, plant identification, identification of health related issues, and general horticulture practices necessary to be successful in the horticulture industry.
3. Identify 300 plants found in the Central Valley of California and describe the cultural characteristics, as well as growth habits, for each.
4. Demonstrate good work habits and inter-personal communication skills that employers demand.

CERTIFICATE REQUIREMENTS

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

I. AGRICULTURE CAREER REQUIRED UNITS - COMPLETE 5 UNITS

AG 115 [1] Introduction to Agricultural Education & Careers .............................. 1
AG 349A-D [NP] Work Experience (total of 4 units)** ........................................ 4 OR
AG 249 [NP] Agriculture Internship ................................................................ 2

II. AGRICULTURE BREADTH CORE UNITS - COMPLETE 9 UNITS

AGM 200 [NP] Introduction to Mechanical Technology ........................................ 3
NR 200 [NP] Soils .................................................................................................. 4
PLSC 200 [1] Introduction to Plant Science .......................................................... 3
AGEC 200 [2] Agricultural Accounting and Analysis ............................................ 3 OR
AGEC 225 [NP] Agriculture Computer Applications ............................................ 3

III. AGRICULTURE MAJOR COURSES - COMPLETE 20 UNITS

EHS 201 [1, 2] Plant Identification & Usage 1 ......................................................... 3
EHS 202 [1, 2] Plant Identification & Usage 2 ......................................................... 3
EHS 210 [1] Introduction to Environmental Horticulture ...................................... 3
EHS 220 [2, 3, 4] Turfgrass Management .............................................................. 2
EHS 276 [1] Landscape Maintenance ................................................................. 3
EHS 278 [2, 3, 4] Landscape Construction and Installation ..................................... 3
EHS 215 [3, 4] Landscape Design ........................................................................ 3
IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 7 UNITS

AG 280 (NP) Agricultural Computations ................................................. 3
AG 285 (NP) Agricultural Communications ........................................... 3
NR 222 [3] Native Tree & Shrub Identification .......................................... 3
AGEC 280 [2,3,4] Agricultural Sales and Service ........................................ 3
AGM 230 [3,4] Field Surveying ................................................................. 2
NR 230 [2,3] Outdoor/Forest Recreation .................................................... 3
PLSC 250 [3,4] Plant Nutrition and Fertilizer ............................................. 3
PLSC 255 [3,4] Plant Pest Control ............................................................ 3
TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .......... 41

**Required

CERTIFICATE OF ACHIEVEMENT: LANDSCAPE DESIGN

The Landscape Design program prepares students to enter the field of landscape design at the entry level. The program is for students interested in learning the more pragmatic and applications aspect of landscaping and is directed to the application of established scientific and engineering knowledge and methods.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. List at least five career opportunities in the horticulture industry, both locally and within the State of California and the United States.
2. Demonstrate general nursery practices of the industry, including transplanting, plant identification, identification of health related issues, and general horticulture practices necessary to be successful in the horticulture industry.
3. Identify 300 plants found in the Central Valley of California and describe the cultural characteristics, as well as growth habits, for each.
4. Demonstrate good work habits and interpersonal communication skills that employers demand.

PROGRAM REQUIREMENTS

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES - COMPLETE 21 UNITS

NR 200 [2] Soils .................................................................................. 4
EHS 201 [1,2] Plant Identification and Usage ........................................... 3
EHS 202 [1,2] Plant Identification and Usage ........................................... 3
EHS 210 [1] Introduction to Environmental Horticulture .......................... 3
EHS 215 [3] Landscape Design .............................................................. 3
AG 115 [1] Introduction to Agricultural Education and Careers ............... 1
AG 349A-D (NP) Agriculture Work Experience ...................................... 4

ELECTIVE COURSES - COMPLETE 9 UNITS

EHS 276 (NP) Landscape Maintenance .................................................. 3
EHS 278 (NP) Landscape Construction and Installation ............................ 3
NR 222 [3] Native Tree & Shrub Identification ......................................... 3
CSCI 201 (NP) General Computer Literacy ............................................. 3
AGEC 225 (NP) Agriculture Computer Applications .............................. 3
TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .......... 30

CERTIFICATE OF ACHIEVEMENT: NURSERY PRODUCTION

In this program, the student will develop skills relating to plant identification, propagation and growing for sale, operations and maintenance of plant nursery equipment and structures. Contact the division office in the Agriculture Building for advising assistance.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. List at least five career opportunities in the horticulture industry, both locally and within the State of California and the United States.
2. Demonstrate general nursery practices of the industry, including transplanting, plant identification, identification of health related issues, and general horticulture practices necessary to be successful in the horticulture industry.
3. Identify 300 plants found in the Central Valley of California and describe the cultural characteristics, as well as growth habits, for each.
4. Demonstrate good work habits and interpersonal communication skills that employers demand.

CERTIFICATE REQUIREMENTS

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

I. AGRICULTURE CAREER CORE - COMPLETE 5 UNITS

AG 115 [1] Introduction to Agricultural Education and Careers ............... 1
AG 249 (NP) Agriculture Internship ...................................................... 2

II. AGRICULTURE SCIENCE BREADTH CORE - COMPLETE 9 UNITS

PLSC 200 (NP) Introduction to Plant Science .......................................... 3
ANSC 200 (NP) Introduction to Animal Science ....................................... 3
NR 200 [2] Soils .................................................................................. 4
AGM 200 (NP) Introduction to Mechanical Technology ............................ 3
AGEC 225 (NP) Agriculture Computer Applications ................................ 3 OR
AGEC 210 [1] Elements of Agriculture Economics ................................... 3 OR
AGEC 200 [2,3,4] Agriculture Accounting and Analysis ............................ 3

III. AGRICULTURE MAJOR COURSES - COMPLETE 21 UNITS

AG 280 (NP) Agricultural Computations ................................................. 3
AG 285 (NP) Agricultural Communications ........................................... 3
EHS 210 [1] Introduction to Environmental Horticulture .......................... 3
EHS 201 [1,2] Plant Identification and Usage ........................................... 3
EHS 202 [1,2] Plant Identification and Usage ........................................... 3
EHS 215 [3,4] Landscape Design .............................................................. 3
EHS 220 [3,4] Turfgrass Management ...................................................... 2
EHS 235 [3,4] Plant Propagation/Production ............................................. 3
NR 222 [3,4] Native Tree & Shrub Identification ......................................... 3

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 6 UNITS

Any course in Plant Science or Agriculture Economics ........................... 3
EHS 276 (1,2) Landscape Maintenance .................................................. 3 OR
EHS 278 [2,3] Landscape Construction and Installation ............................ 3
PLSC 250 [3,4] Plant Nutrition and Fertilizer .......................................... 3
PLSC 255 [3,4] Plant Pest Control ........................................................... 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .......... 41

**Required
Environmental Horticulture Science Courses (EHS)

In this program the student will develop skills in plant recognition and use, nursery practices, and landscape design sufficient to enter the landscape or nursery business or to transfer to a university. Contact the division office in the Agriculture Building for advising assistance.

**EHS 50—BEGINNING ORNAMENTAL GARDENING** 2 UNITS  
36 Lecture Hours  
Formerly listed as OH 50

Preparation for the fundamentals of indoor and outdoor gardening, planting for patios and balconies, gardening in containers and simple landscaping. Designed for anyone interested in gardening, regardless of prior experience or size of garden. A series of 30 television programs supported by coordinating textual material and by additional printed materials that are optional. Field trips 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, seedling, transplanting, planting, 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 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 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 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  
Also offered as: PLSC 235

Formerly listed as: EHS - 235: Plant Propagation/Production Planting & Varieties  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EHS 210 or satisfactorily complete PLSC 200.
Plant propagation and production practices with emphasis on nursery operations including sexual and asexual reproduction, planting, transplanting, fertilizing, plant pest and disease control, structures and site layout. Preparation and use of propagating and planting mediums. Use and maintenance of common tools and equipment. Regulations pertaining to plant production. Students will need pruning shears, a grafting knife and a budding knife. Field trips are required. (A-F Only) Transfer: (CSU)

**EHS 276—LANDSCAPE MAINTENANCE** 3 UNITS
36 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactory completion of EHS 210.
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 290—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)

**Transfer:**

Environmental Sciences (CSU)

**A.S. DEGREE: UNIVERSITY PREPARATION, EMPHASIS IN ENVIRONMENTAL SCIENCES**

**ABOUT THIS EMPHASIS**
Environmental Science is a field of inquiry exploring living systems and their complex relationships with the world's diverse human cultures. Understanding such relationships is an inherently interdisciplinary endeavor, requiring insights from the Environmental and Social Sciences, as well as the Humanities.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Apply the scientific methods of discovery to problem solving situations in biology, chemistry, and mathematics.
2. Proficiently use the scientific vocabulary, including the key terms and concepts in biology, chemistry, and mathematics.

**EMPHASIS REQUIREMENTS**

To earn an Associate Degree with this emphasis, the student must complete the requirements detailed in the University Preparation Pathway (p. 97) which include completion of the requirements below. See advisor for selection of courses.

**REQUIRED COURSES – COMPLETE 18 UNITS**

- BIO 101 [NP] Biological Principles ............................................................... 5
- BOT 101 [NP] General Botany ................................................................. 4
- CHEM 101 [NP] General Chemistry 1 ......................................................... 5 OR
- CHEM 143 [NP] Introductory College Chemistry ....................................... 5
- GEOL 161 [NP] Physical Geology ............................................................ 4

**TOTAL UNITS REQUIRED IN AREA OF EMPHASIS ....................... 18**

*Conversion of this degree from an AA to an AS is currently pending approval from the California Community Colleges Chancellor’s Office.*
Environmental Sciences Courses (ENSCI)

ENSCI 108—ENVIRONMENTAL CONSERVATION  3 UNITS
54 Lecture Hours
Study of the world's environment to sustain the highest quality of life. Includes study of ecology, populations, environmental pollution, conservation of natural resources including: energy, water, soils, forests, rangelands, and wildlife. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU) General Education: (MJC-GE: B2)(IGETC: SB)

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)

Ethnic Studies

PROGRAM

SKILLS RECOGNITION: ETHNIC STUDIES

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Understand how race and ethnic relations have been shaped by economic, social, cultural, and political realities.
2. Demonstrate familiarity with various methodological approaches to the terrains of race and ethnicity, especially in their relation to identity, inequality, culture, and history.

To earn a Skills Recognition Award the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES — COMPLETE 6 UNITS

ANTH 102 (NP) Cultural Anthropology .................................................. 3
HIST 107 (NP) World Civilization from the 16th Century .............................. 3
COMM 130 (NP) Intercultural Communication ........................................... 3

COMPLETE ONE OPTION FOR 9 UNITS, WITH 3 UNITS COMPLETED EACH CONCENTRATION:

I. INTERNATIONAL STUDIES OPTION:

A. EXAMINING CULTURE THROUGH THE ARTS AND LITERATURE: COMPLETE 3 UNITS
ART 169 (NP) History of Non-Western Art ........................................... 3
ENGL 131 (NP) Introduction to World Literature I ................................. 3
ENGL 132 (NP) Introduction to World Literature (1500 to Present) ............ 3
ENGL 151 (NP) Folklore ........................................................................ 3
ENGL 173 (NP) Introduction to Latin American Literature ...................... 3
HUMAN 110 (NP) East Meets West .......................................................... 3
MUSIC 169 (NP) Introduction to World Music .......................................... 3
THETR 102 (NP) World Theater .............................................................. 3
THETR 194/PE 194 (NP) Introduction to World Dance ............................ 3

B. EXAMINING HISTORICAL AND POLITICAL PERSPECTIVES — COMPLETE 3 UNITS
BUSAD 208 (NP) Introduction to International Business .......................... 3
GEOG 110 (NP) World Regional Geography .......................................... 3
HIST 106 (NP) World Civilization from the 16th Century ...................... 3
HIST 125 (NP) History of Mexico ........................................................... 3
POLS 110 (NP) International Relations ..................................................... 3

C. EXPLORING CULTURAL AND SOCIOLOGICAL ISSUES — COMPLETE 3 UNITS
ANTH 140 (NP) Magic, Witchcraft, & Religion ....................................... 3
ANTH 150 (NP) Native People of North America .................................... 3
GEOG 102 (NP) Cultural Geography ..................................................... 3
HUMAN 130 (NP) Introduction to Western Religions ................................ 3
SOCSCI 105 (NP) Women's Studies ......................................................... 3

II. DOMESTIC STUDIES OPTION

A. EXAMINING CULTURE THROUGH ARTS AND LITERATURE — COMPLETE 3 UNITS
ENGL 171 (NP) Introduction to African American Literature ................... 3
ENGL 172 (NP) Introduction to Chicano Literature .................................. 3
ENGL 179 (NP) Intro to Native American Lit, Mythology, and the Oral Tradition 3
HUMAN 120 (NP) Culture, Diversity, & Tolerance in the Arts .................. 3
SPAN 112 (NP) Introduction to Chicano/a Literature .............................. 3

B. EXAMINING HISTORICAL AND POLITICAL PERSPECTIVES - COMPLETE 3 UNITS
HIST 113 (NP) Social & Cultural Hist of the U.S. prior to the 20th Century .... 3
HIST 119 (NP) Social & Cultural Hist of 20th Century America ............... 3
HIST 128 (NP) History of the American Far Western Frontier .................. 3
HIST 154 (NP) African Americans through the 19th Century ................... 3
HIST 155 (NP) African Americans through the 20th & 21st Century .......... 3

C. EXPLORING CULTURAL AND SOCIOLOGICAL ISSUES - COMPLETE 3 UNITS
CLDDV 262 (NP) Diversity in Educational Settings ................................. 3
SOCI 150 (NP) Ethnicity & Culture in America ....................................... 3
SOCI 154 (NP) African-American Cultures and Communities ................. 3
SOCI 156 (NP) Mexican Culture in the United States ............................. 3

TOTAL UNITS FOR SKILLS RECOGNITION AWARD .......................... 15

Family Life Courses (FAMLF)

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-remarriage, 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  0.5, 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)
FAMLF 390—THE PROCESS OF PARENTING  
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 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)

**Fire Academy**

**PROGRAM**

**SKILLS RECOGNITION: FIRE ACADEMY**

The Fire Academy Skills Recognition Award verifies the satisfactory completion of the educational standards for Firefighter I. The Academy does not meet the experience requirement for State Fire Marshal certification, but it does meet the educational and training requirements. Completion will be provided by the Technical Education division.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate compliance with state Fire Training Requirements for Firefighter I.
2. Demonstrate compliance with National Fire Protection Association Standards.

**REQUIRED PREPARATION**

- Satisfactory completion of FSCI 301 and EMS 350 or EMS 390 with a grade of C or better
- Satisfactory completion of a physical agility test with a valid CPAT card.
- Physician’s statement of student health

**REQUIRED COURSE - COMPLETE 17 UNITS**

FSCI 362 [NP] Basic Fire Academy .............................................. 8
FSCI 363 [NP] Advanced Fire Academy ........................................ 9

**TOTAL UNITS FOR SKILLS RECOGNITION AWARD** .................................. 17

**A.S. DEGREE: FIRE SCIENCE**

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate compliance with all laws, regulations, codes, and standards that influence fire department operation.
2. Demonstrate compliance with California State Fire Training Standards for Firefighter I.
3. Explain the flow requirements for fire apparatus, diagraming a pump and plumbing schematic.
4. Demonstrate the ability to respond safely and effectively to fire situations by explaining the requirements needed to respond to emergencies in private, city, state, and federal locations and describing the rank structure and job requirements for all positions.
5. Explain minimum qualifications and entry-level skills for firefighter hiring, describing the following elements: application process, written exam process, physical agility exam process, interview process and chief’s interview process.
6. Describe common types of building construction as well as conditions associated with structural collapse and firefighter safety.

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements for certificate of achievement in Fire Science Courses.

**REQUIRED COURSE - COMPLETE 3 UNITS**

FSCI 301 (NP) Fire Protection Organization ........................................... 3

**ELECTIVE COURSES - COMPLETE 27 UNITS**

FSCI 302 (NP) Fire Protection Technology ............................................. 3
FSCI 303 (NP) Fire Protection Equipment & Systems ................................ 3
FSCI 304 (NP) Building Construction for Fire Protection .......................... 3
FSCI 305 (NP) Fire Behavior and Combustion ........................................ 3
FSCI 309 (NP) Fire Management E ..................................................... 2.5
FSCI 311 (NP) Rescue Systems 1 ......................................................... 2
FSCI 322 (NP) Fire Service Career Development/Promotions ..................... 3
FSCI 323 (NP) Fire Hydraulics .............................................................. 3
FSCI 327 (NP) Fire Apparatus and Equipment ........................................ 3
FSCI 328 (NP) Investigation of Fires .................................................... 3
FSCI 332 (NP) Fire Science Tactics & Strategy ......................................... 3
FSCI 333 (NP) Rescue Practices ............................................................ 3
FSCI 337 (NP) Wildland Fire Control .................................................. 3
FSCI 347 (NP) Fire Prevention 1C ...................................................... 2.5
FSCI 350 (NP) Fire Command 1A ...................................................... 2
FSCI 351 (NP) Fire Command 1B ....................................................... 2
FSCI 352 (NP) Training Instructor 1A .................................................. 2.5
FSCI 353 (NP) Training Instructor 1B .................................................. 2.5
FSCI 354 (NP) Fire Prevention 1A ...................................................... 2.5
FSCI 355 (NP) Fire Prevention 1B ...................................................... 2.5
FSCI 356 (NP) Fire Management 1 ..................................................... 2.5
FSCI 357 (NP) Fire Investigation 1 ..................................................... 2.5
FSCI 362 (NP) Basic Fire Academy ..................................................... 8
FSCI 363 (NP) Advanced Fire Academy ............................................. 9
FSCI 364 (NP) Fire Apparatus Driver/Operator 1A ................................. 2
FSCI 366 (NP) Fire Apparatus Driver/Operator 1B ................................. 2
F: FIRE SCIENCE

CERTIFICATE OF ACHIEVEMENT: FIRE SCIENCE

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate compliance with all laws, regulations, codes, and standards that influence fire department operation.
2. Demonstrate compliance with California State Fire Training Standards for Firefighter I.
3. Explain the flow requirements for fire apparatus, diagraming a pump and plumbing schematic.
4. Demonstrate the ability to respond safely and effectively to fire situations by explaining the requirements needed to respond to emergencies in private, city, state, and federal locations and describing the rank structure and job requirements for all positions.
5. Explain minimum qualifications and entry-level skills for firefighter hiring, describing the following elements: application process, written exam process, physical agility exam process, interview process and chief's interview process.
6. Describe common types of building construction as well as conditions associated with structural collapse and firefighter safety.

To earn a Certificate of Achievement, the student must complete the coursework as indicated below. Each course must be completed with a grade of C or better.

REQUIRED COURSE - COMPLETE 3 UNITS

FSCI 301 [1] Fire Protection Organization .................................................. 3

ELECTIVE COURSES - COMPLETE 27 UNITS

FSCI 305 [1] Fire Behavior and Combustion .............................................. 3
FSCI 309 [NP] Fire Management 2E ......................................................... 2
FSCI 311 [NP] Rescue Systems 1 ............................................................... 2
FSCI 312 [NP] Fire Investigation 2A .......................................................... 2
FSCI 322 [4] Fire Science Career Development/Promotions ....................... 3
FSCI 328 [4] Investigation of Fires ............................................................ 3
FSCI 341 [NP] Fire Command 1C - I-Zone Firefighting ............................ 2
FSCI 347 [NP] Fire Prevention 1C .......................................................... 2.5
FSCI 348 [NP] Public Fire Education .......................................................... 2
FSCI 350 [NP] Fire Command 1A ............................................................ 2
FSCI 351 [NP] Fire Command 1B ............................................................ 2
FSCI 352 [NP] Training Instructor 1A ..................................................... 2
FSCI 353 [NP] Training Instructor 1B ..................................................... 2

TOTAL UNITS IN A.S. MAJOR .......................................................... 30

CERTIFICATE OF ACHIEVEMENT:

ELECTIVE COURSES - COMPLETE 27 UNITS

FSCI 305 [1] Fire Behavior and Combustion .............................................. 3
FSCI 309 [NP] Fire Management 2E ......................................................... 2
FSCI 311 [NP] Rescue Systems 1 ............................................................... 2
FSCI 312 [NP] Fire Investigation 2A .......................................................... 2
FSCI 322 [4] Fire Science Career Development/Promotions ....................... 3
FSCI 328 [4] Investigation of Fires ............................................................ 3
FSCI 341 [NP] Fire Command 1C - I-Zone Firefighting ............................ 2
FSCI 347 [NP] Fire Prevention 1C .......................................................... 2.5
FSCI 348 [NP] Public Fire Education .......................................................... 2
FSCI 350 [NP] Fire Command 1A ............................................................ 2
FSCI 351 [NP] Fire Command 1B ............................................................ 2
FSCI 352 [NP] Training Instructor 1A ..................................................... 2
FSCI 353 [NP] Training Instructor 1B ..................................................... 2

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .................. 30

Fire Science Courses (FSCI)

The Fire Science curriculum prepares the student for a career in fire service. Students will learn about the organization and operations of fire service, proper use of fire equipment, tactics and strategies of firefighting, specialized job skills, and management techniques. Fire Science courses dropped or inactivated Fall 1987 to Fall 1988 are valid for students completing those courses prior to deletion from the catalog. For more information, contact the Regional Fire Training Center at 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

54 Lecture Hours

Formerly listed as: FSCI 303: Fire Protection Equip & Systems

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.

Portable fire extinguishing equipment; sprinkler systems; protection systems for special hazards; fire alarm and detection systems. Field trips are required. (A-F Only) Transfer: (CC FIRE 3)
FSCI 304—BUILDING CONSTRUCTION FOR FIRE PROTECTION 3 UNITS
54.00 Lecture Hours
Formerly listed as: FSCI 304: Bldg Construction for Fire Protection
Prerequisite: Satisfactory completion of FSCI 301.
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,
equivalents, 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 2.5 UNITS
45 Lecture Hours
Limitations on Enrollment: Enrollment limited to students who can provide a
State Fire Training Certificate for Fire Management 1A.
Ethical leadership is an essential core value for all leaders in the fire service. This
course provides chief officers or chief officer candidates with knowledge to correlate
personal core values and characteristics to ethical decisions and behaviors. Course
examines exploration of ethical and principle-centered leadership. Course instructor
will require students to provide a State Fire Training Fire Management 1A certificate.
Materials Fee Required. Field trips 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 CAREER DEVELOPMENT/PROMOTIONS 3 UNITS
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.
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 336—RESCUE PRACTICES 3 UNITS
54 Lecture Hours
Recommended for Success: Before enrolling in this course, students are
strongly advised to satisfactorily complete FSCI 301.
Rescue problems and techniques; emergency rescue equipment; toxic gases;
chemicals and diseases; radiation hazards; care of victims, including respiration
and resuscitation, extrication, and other emergency conditions. Field trips might be
required. (A-F Only)
FSCI 337 — WILDLAND FIRE CONTROL  
3 UNITS  
54 Lecture Hours  
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  
Responsibilities of the Company Officer at a wildland/urban interface incident. Materials Fee Required. (A-F Only) Lecture

FSCI 347 — FIRE PREVENTION 1C  
2.5 UNITS  
45 Lecture Hours  
Prerequisite: Satisfactory completion of FSCI 301 with a minimum grade of C or better.  
Prepares 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)

FSCI 350 — FIRE COMMAND 1A  
2 UNITS  
45 Lecture Hours  
Prerequisite: Satisfactory completion of FSCI 301 with a minimum grade of C or better.  
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

FSCI 351 — FIRE COMMAND 1B  
2 UNITS  
34 Lecture Hours, 6 Lab Hours  
Prerequisite: Satisfactory completion of FSCI 301 and FSCI 350.  
Provides 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 not required. (A-F Only)

FSCI 352 — TRAINING INSTRUCTOR 1A  
2.5 UNITS  
45 Lecture Hours  
Formerly listed as: FSCI 352: Fire Instructor 1A  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 101 and/or Possess a California Firefighter I certificate.  
The first of a three course series to prepare in-service firefighters to become a company officer and or a California State Fire Training Level 1 Instructor. Training instructor courses must be taken in order 1A, 1B then 1C. Topics include methods and techniques for cognitive training in accordance with current concepts in vocational education. Emphasis on selecting, adapting, organizing, and using instructional materials appropriate for teaching cognitive lessons. Personnel enrolled will be responsible to learn principles of learning, levels of instruction, methods of selecting, adapting, organizing and evaluating instructional efficiency. All students will complete all assignments and deliver two student lead cognitive teaching demonstrations, and must pass a state certified written test. Materials fee required. Field trips are not required. (A-F Only)

FSCI 353 — TRAINING INSTRUCTOR 1B  
2.5 UNITS  
45 Lecture Hours  
Formerly listed as: FSCI 353: Fire Instructor 1B  
Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Training Instructor 1A.  
This is the second class of a three course series to prepare in-service firefighters to become a company officer and or a California State Fire Training Level 1 Instructor. Training instructor courses must be taken in order 1A, 1B then 1C. Topics include methods and techniques for psychomotor training in accordance with current concepts in vocational education. Emphasis on selecting, adapting, organizing, evaluating instruction appropriate for teaching psychomotor lessons. Personnel enrolled will be responsible to learn methods of employing the four-step-method of instruction for psychomotor training. All students will complete all assignments and deliver two student lead psychomotor teaching demonstrations, and pass a state certified written test. Enrolled students must present course instructor with a Training Instructor 1A state certification the first day of class. Materials Fee Required. (A-F Only) Lecture

FSCI 354 — FIRE PREVENTION 1A  
2.5 UNITS  
45 Lecture Hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to have completed their firefighter probation or have supervisor’s approval for enrollment if still on probation.  
Designed to provide prospective or active Fire Company Officer and Fire Prevention personnel with basic fire prevention information. Structured to prepare the student for responding to a variety of fire prevention situations in a professional and effective manner. Materials fee required. Field trips might be required. (A-F Only)

FSCI 355 — FIRE PREVENTION 1B  
2.5 UNITS  
45 Lecture Hours  
Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Fire Prevention 1A.  
Designed to provide fire service personnel with the second phase of state certified fire prevention instruction. Includes instruction on private water systems, fixed fire extinguishing, detection and alarm systems. Materials fee required. Field trips are required. (A-F Only)

FSCI 356 — FIRE MANAGEMENT 1  
2.5 UNITS  
45 Lecture Hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.  
Designed to provide the fire service student with instruction in the elements of organizational process, demonstration of growth and development in the use of managerial skills, applications of the course content to fire service work and personal life, location and use of managerial resources, and development of an action plan. Materials fee required. Field trips might be required. (A-F Only)

FSCI 357 — FIRE INVESTIGATION 1  
2.5 UNITS  
45 Lecture Hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.
Examines the national arson problem, fire investigation responsibilities, conduct of the investigator; fire chemistry, heat energy sources and explosive conditions; fire investigation techniques and legal aspects of fire investigation. Materials fee required. Field trips are required. (A-F Only)

**FSCI 362—BASIC FIRE ACADEMY**

*8 UNITS*

108 Lecture Hours, 108 Lab Hours
Prerequisite: Satisfactory completion of FSCI 301 and EMS 350.

Limitations on Enrollment: Enrollment limited to students who are accepted into the Fire Academy program by Fire Academy Selection Committee and who possess CPAT certification, per NFPA 1582 regulation.

Basic knowledge and skills of a fire fighter as set by the State Fire Marshal. Successful completion of the course fulfills the educational requirement for Fire Fighter I. Materials fee required. Field trips are required. (A-F Only) (MIC FSCI 362+363=CC FIRE 7, FIRE 50, FIRE 101, FIRE 106, FIRE 108, FIRE 110)

**FSCI 363—ADVANCED FIRE ACADEMY**

*9 UNITS*

81 Lecture Hours, 243 Lab Hours
Prerequisite: Satisfactory completion of FSCI 362.

Basic Fire Academy is the second of two courses of the Fire Academy designed for the individual who desires a career as a professional firefighter. This course includes instruction in ventilation, vehicle extraction, ICS 200, 67-hr. Wildland Firefighting, Confined Space Awareness, Low-Angle Rope Rescue Operations, Hazmat Operations/Decom, Firefighter Survival. Materials fee required. Field trips are required. (A-F Only) (MIC FSCI 362+363=CC FIRE 7, FIRE 50, FIRE 101, FIRE 106, FIRE 108, FIRE 110)

**FSCI 364—FIRE APPARATUS DRIVER/OPERATOR 1A**

*2 UNITS*

27 Lecture Hours, 27 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 362.

Limitations on Enrollment: Enrollment limited to students who possess a valid California Driver's License, class B, firefighter restricted (minimum).

Continued development of a fire fighter's career. Operation of emergency vehicle and pump operations. How to drive and maintain various types of vehicles. Pump operation and uses for water sources and determining water flow. Materials fee required. Field trips might be required. (A-F Only) (CC FIRE 29A and 29B)

**FSCI 366—FIRE APPARATUS DRIVER/OPERATOR 1B**

*2 UNITS*

34 Lecture Hours, 6 Lab Hours

Limitations on Enrollment: Enrollment limited to students who possess a valid California Driver's License, class B, firefighter restricted (minimum).

Pump construction and theory of pump operations. Topics include: methods for performing basic hydraulics and techniques on basic inspections, documentation, maintenance, and troubleshooting fire pumps. Each student also has the opportunity to increase his or her pumping skills during simulated pumping conditions. Materials Fee Required. Field trips might be required. (A-F Only) Lecture/Lab.

**FSCI 367—FIRE INVESTIGATION 1B**

*2.5 UNITS*

45 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Fire Investigation 1A.

This course provides a deeper understanding of fire investigation and builds on Fire Investigation 1A. Topics include: The juvenile fire setter, report writing, evidence preservation and collection, interview techniques, motives, and fire fatalities. Materials fee required. Field trips might be required. (A-F Only)

**FSCI 369—TRAINING INSTRUCTOR 1C**

*2.5 UNITS*

36 Lecture Hours, 27 Lab Hours

Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Training Instructor 1A and a State Fire Training Certificate for Training Instructor 1B.

This is the third of a three-course series to prepare in-service firefighters to become a California State Fire Training Level 1 instructor. Topics include methods and techniques for developing and delivering cognitive and psychomotor lesson plans. Emphasis on developing lesson plans, ancillary components, and testing tools for cognitive and psychomotor lessons. Personnel enrolled will be responsible to learn methods for developing and delivering cognitive and psychomotor lessons. All students will develop and deliver two student lead teaching demonstrations and pass a state certification test. Enrolled students must present course instructor with a Training Instructor 1A and 1B certificate on the first day of class. Materials fee required. Field trips are not required. (A-F Only)

**FSCI 371—FIRE COMMAND 2A**

*2.5 UNITS*

45 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Fire Command 1A and I-300.

Prepares Fire Officers to use management techniques and Incident Command System when commanding multiple alarms or large combat forces. Materials fee required. Field trips might be required. (A-F Only)

**FSCI 372—FIRE MANAGEMENT 2B**

*2.5 UNITS*

45 Lecture Hours

Formerly listed as: FSCI 372B: Fire Management 2B

Limitations on Enrollment: Enrollment limited to students who can provide State Fire Training Certificate for Fire Management 1.

Covers the purpose of budgeting, budget controls, types of budgets and budget systems and justifying budgets. Materials fee required. Field trips might be required. (A-F Only)

**FSCI 373—FIRE INSTRUCTOR 2A**

*2.5 UNITS*

45 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who can provide State Fire Training Certificate for Training Instructor 1A, Training Instructor 1B, and Training Instructor 1C.

The first of three State Fire Training courses for Fire Instructor II certification. Advanced skill development for instructors who are responsible for evaluating performance. Course work provides the student with the techniques of evaluation. Course content includes construction of written and performance tests. Students will apply concepts of test planning, test analysis, test security, and test evaluation to determine instructor and student effectiveness. This is an essential course for writing valid and objective Fire Service tests. Materials fee required. Field trips are not required. (A-F Only)

**FSCI 374—FIRE INSTRUCTOR 2B**

*2.5 UNITS*

45 Lecture Hours

Limitations on Enrollment: Enrollment limited to students who can provide State Fire Training Certificates for Fire Instructor 1A and 1B, or Training Instructor 1A, 1B, and 1C.

Second of three courses for California State Fire Training, Fire Instructor II certification. Students receive advanced leadership and development skills for planning staff level training and group meetings. Course work includes information on group dynamics, problem-solving techniques, interpersonal relations, staff meetings,
brainstorming sessions, panel discussions, conferences and forums. Materials fee required. Field trips are not required. (A-F Only)

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: (MUC-GE: A)

Fire Technology Courses (FTECH)

FTECH 301XABC—INCIDENT COMMAND SYSTEMS  0.5 - 3 UNITS

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

Limitations on Enrollment: Enrollment limited to students who are certified firefighters.

Provides description and detail of the Incident Command System (ICS) organization and operations in supervisory roles on all types of emergency incidents. Materials fee required. Field trips may be required. (A-F or P/NP) Lecture.

FTECH 310XABC—RESCUE SYSTEMS AND OPERATIONS  0.5 - 3 UNITS

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

Limitations on Enrollment: Enrollment limited to students who are able to provide Low Angle Rescue (LAR) course certification.

Principles and practices of basic fire service; how to safely and effectively participate in rescue operations. Materials fee required. (A-F or P/NP) Lecture.

A.S. DEGREE: FORESTRY

This program will develop entry-level job skills and knowledge in natural resources. The student will develop skills in timber cruising, log scaling, firefighting, forest inventory, and use of aerial photos sufficient to obtain entry level employment or to transfer to a university. Contact the division office in the Agriculture Building for advising assistance.

Program Learning Outcomes

Upon satisfactory completion of this award, the student should be prepared to:

1. Employ the scientific method to solve problems in the laboratory and in the natural environment.

2. Practice safe work habits in an employment setting, including handling and storage of hazardous materials and operation of basic tools and equipment.

3. Demonstrate sufficient mastery of forestry and land management skills for technical employment in the natural resource management.

4. Apply the principles of ecology, soil science, silviculture, cartography, and facilities maintenance and development to sustainable resources management problems.

5. Develop environmental ethics as an operational philosophy for resource management, public education of natural resources, and wildlife management.

Major Requirements

To earn an Associate in Science Degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway or the University Preparation Pathway which include completion of the requirements below.

I. FORESTRY CAREER COURSES - COMPLETE 5 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 200 [NP] Soils</td>
<td>4</td>
</tr>
<tr>
<td>AGM 200 [NP] Introduction to Mechanical Technology</td>
<td>3</td>
</tr>
<tr>
<td>AGE 210 [NP] Elements of Agricultural Economics</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGE 200 [NP] Agriculture Accounting and Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>AG 349ABCD [NP] Work Experience Agriculture - Supervised Practice</td>
<td>1 - 4</td>
</tr>
<tr>
<td>NR 220 [NP] Introductory Forestry</td>
<td>3</td>
</tr>
<tr>
<td>NR 222 [NP] Native Tree and Shrub Identification</td>
<td>3</td>
</tr>
<tr>
<td>ENSCI 108 [NP] Environmental Conservation</td>
<td>3</td>
</tr>
<tr>
<td>ENSCI 109 [NP] Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>NR 376 [NP] Forestry Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

III. FORESTRY MAJOR COURSES - COMPLETE 12 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 115 * Intro to Agricultural Education &amp; Careers</td>
<td>1</td>
</tr>
<tr>
<td>AG 249 ** Agriculture Internship</td>
<td>2 OR</td>
</tr>
<tr>
<td>AG 200 [NP] Agricultural Economics</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 200 [NP] Introduction to Plant Science</td>
<td>3</td>
</tr>
</tbody>
</table>
IV. FORESTRY MAJOR ELECTIVES - COMPLETE 4 UNITS

Any Natural Resources, Agriculture Economics or Plant Science course not listed or used above ........................................ 3
AG 280 [NP] Agricultural Computation ............................................................... 3
AGM 230 [NP] Field Surveying ........................................................................... 2
AG 285 [NP] Agricultural Communications ..........................................................3
AGM 215 [NP] Machinery Management ............................................................. 3

TOTAL UNITS ......................................................................................................... 30

*Required
**Internship/Work Experience must be Agriculture related

Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 349Q, or a combination of AG 349A-C, or a combination of AG 249 and AG 349A-B.

*Pending State Chancellor’s Office approval.

CERTIFICATE OF ACHIEVEMENT: FORESTRY TECHNICIAN

This program will develop entry-level job skills and knowledge in natural resources. The student will develop skills in timber cruising, log scaling, firefighting, forest inventory, and use of ariel photos sufficient to obtain entry level employment or to transfer to a university. Contact the division office in the Agriculture Building for advising assistance.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Employ the scientific method to solve problems in the laboratory and in the natural environment.
2. Practice safe work habits in an employment setting, including handling and storage of hazardous materials and operation of basic tools and equipment.
3. Demonstrate sufficient mastery of forestry and land management skills for technical employment in the natural resource management.
4. Apply the principles of ecology, soil science, silviculture, cartography, and facilities maintenance and development to sustainable resources management problems.
5. Develop environmental ethics as an operational philosophy for resource management, public education of natural resources, and wildlife management.

CERTIFICATE REQUIREMENTS

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

AG 115 [1] Introduction to Agricultural Education and Careers ...........................................1
AG 349 A-D [NP] Work Experience, (max completion total 4 units) ................................. 4 OR
AG 249 [NP] Agriculture Internship .............................................................................. 2

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

PLSC 200 [1] Introduction to Plant Science ............................................................. 3
ANSC 200 (1,2) Introduction to Animal Science ............................................................ 3
NR 200 (1,2) Soils ........................................................................................................... 4
AGM 200 [NP] Introduction to Mechanical Technology .................................................. 3
AGEC 225 [NP] Agriculture Computer Applications ...................................................... 3 OR
AGEC 210 [NP] Elements of Agriculture Economics ...................................................... 3 OR
AGEC 200 [NP] Agriculture Accounting and Analysis .................................................... 3

III. AGRICULTURE MAJOR COURSES - COMPLETE 15 UNITS

ENSCI 108 (2) Environmental Conservation ............................................................... 3
NR 220 [1] Introductory Forestry .................................................................................. 3
NR 222 (2,3) Native Tree & Shrub Identification ............................................................. 3
NR 224 [3] Intro to Forestry Measurement ...................................................................... 3
NR 276 (2) Forestry Technology ................................................................................... 3
NR 379 [3] Wildland Fire Control .................................................................................. 1

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 6 UNITS

Any Natural Resources, Agriculture Economics 121 or Plant Science courses not listed or used above .............................................. 3
AG 280 [NP] Agricultural Computation ....................................................................... 3
AGM 230 [NP] Field Surveying ..................................................................................... 3
AG 285 [NP] Agricultural Communications ............................................................... 3
AGM 215 [NP] Machinery Management ................................................................. 3
EHS 276 (NP) Landscape Maintenance ....................................................................... 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ........................................... 35

French Courses (FREN)

FREN 101—FRENCH 1  5 UNITS
90 Lecture Hours

Formerly listed as: FREN 1: Introduction to Practical French 1

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

FREN 102—FRENCH 2  5 UNITS
90 Lecture Hours

Formerly listed as: FREN 2: Introduction to Practical French 2

Prerequisite: Satisfactory completion of FREN 1.

Continuation of FREN 1 Slow-paced, non-transferable course designed for people who wish to continue from French 1. Basic French grammar and pronunciation. Field trips might be required. (A-F or P/NP) General Education: (MJC-GE: C)

FREN 51—INTRODUCTORY FRENCH 1  3 UNITS
54 Lecture Hours

Formerly listed as: FREN 51: Introduction to Practical French 1

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

FREN 52—INTRODUCTORY FRENCH 2  3 UNITS
54 Lecture Hours

Formerly listed as: FREN 52: Introduction to Practical French 2

Prerequisite: Satisfactory completion of FREN 1.

Continuation of FREN 1 Slow-paced, non-transferable course designed for people who wish to continue from French 1. Basic French grammar and pronunciation. Field trips might be required. (A-F or P/NP) General Education: (MJC-GE: C)

PROGRAMS AND COURSES
To earn a Certificate of Achievement in IGETC, the student must complete the requirements detailed in the IGETC Pattern. Each course must be completed with a grade of C or better. Students who plan to transfer to CSU or UC should consult with a counselor about proper selection of courses and General Education certification.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

Demonstrate proficiency in **NATURAL SCIENCE** by:
1. Explaining how the scientific method is used to solve problems.
2. Describing how scientific discoveries and theories affect human activities.

Demonstrate proficiency in **SOCIAL AND BEHAVIORAL SCIENCE** by:
1. Describing the method of inquiry used by the social and behavioral sciences.
2. Describing how societies and social subgroups have operated in various times and cultures.
3. Analyzing the ways that individuals act and have acted in response to their societies.

Demonstrate proficiency in **HUMANITIES** by:
1. Demonstrating awareness of the various ways that culture and ethnicity affect individual experience and society as a whole.
2. Demonstrating the ability to make well considered aesthetic judgments.

Demonstrate proficiency in **LANGUAGE AND RATIONALITY** by:
1. Demonstrating awareness of the interactive nature of communication involving effective listening, reading, writing, and speaking.
2. Demonstrating critical thinking in the analysis and production of communication.
3. Demonstrating the ability to find, evaluate, and use information in a variety of formats.

Demonstrate proficiency in **HEALTH EDUCATION** by:
1. Describing the integration of the physiological and psychological human being.
3. Evaluating the impact of daily decisions on life and health.
General Studies Program

The Associate of Arts in General Studies with Emphasis provides an opportunity for you to earn an Associate of Arts (AA) degree in a comprehensive area of study. This degree is intended for students who may not be planning to transfer to a university in the near future. The General Studies degree is intended to provide both breadth and depth of education. Breadth is achieved by completion of the 18-unit MJC-GE Pattern for the Associate’s Degree. Depth is achieved when you complete an additional 18-unit Emphasis in one of four areas: Natural Sciences, Social and Behavioral Sciences, Humanities, or Language and Rationale. By completing this pattern of study, you will have a “well rounded” education in addition to lower-division course work in related disciplines which can be used as preparation for a field of study.

A.A. DEGREE: GENERAL STUDIES, EMPHASIS IN HUMANITIES

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Describe how the performing and visual arts, literature, languages and the social sciences have influenced societies in various times.
2. Analyze ways in which the performing and visual arts, literature, languages and the social sciences allow for individuals and social groups to form creative and critical responses to their societies and environment.
3. Demonstrate awareness of the various ways that the performing and visual arts, literature, languages and the social sciences provide creative and critical venues for expressing how culture, ethics, history, belief, and ethnicity affect individual experience and society as a whole.
4. Demonstrate the ability to interpret and analyze the performing and visual arts, literature, languages and the social sciences for meaning and to forge aesthetic, moral, social, political and historical judgments.
5. Demonstrate critical thinking in the analysis of artistic, literary, linguistic and academic knowledge production using both thematic and historical synthesis.

ABOUT THIS EMPHASIS

Courses in the humanities are those that study the cultural activities and artistic expressions of human beings. Students will develop an awareness of the ways in which people throughout the ages and in different cultures have responded to themselves and the world around them in artistic and cultural creations and develop aesthetic understanding, and an ability to make value judgments.

1. Follow the Career and Technical Education Pathway for associate degree on page 101 of the 2014-2015 MJC Catalog. Satisfactory completion of this pathway will result in an associate degree from Modesto Junior College.

2. In fulfillment of the Career and Technical Education Pathway degree requirements, select and complete a General Studies emphasis from the following pages. Coursework completed in fulfillment of a General Education requirement cannot be reapplied toward a General Studies emphasis.

3. For this non-transfer emphasis, complete a minimum of 18 units from the list below. Of that 18 units, select two disciplines. Complete 6 units in each. Students may not double-count units with General Education courses.

REQUIRED COURSES - COMPLETE 18 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 104</td>
<td>Linguistic Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ART 120</td>
<td>Basic Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 124</td>
<td>Color and Design I</td>
<td>3</td>
</tr>
<tr>
<td>ART 140</td>
<td>Sculpture I</td>
<td>3</td>
</tr>
<tr>
<td>ART 160</td>
<td>Appreciation of Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 162</td>
<td>History of Renaissance Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 163</td>
<td>History of Modern Art</td>
<td>3</td>
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<tr>
<td>ART 164</td>
<td>History of Art I</td>
<td>3</td>
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<tr>
<td>ART 165</td>
<td>History of Art II</td>
<td>3</td>
</tr>
<tr>
<td>ART 168</td>
<td>Survey of Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 169</td>
<td>History of Non-Western Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 170</td>
<td>Basic Photography</td>
<td>3</td>
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<tr>
<td>COMM 120</td>
<td>Oral Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>COMM 122</td>
<td>Introduction to Readers’ Theatre</td>
<td>3</td>
</tr>
<tr>
<td>COMM 123</td>
<td>Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Advanced Composition &amp; Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 111</td>
<td>Creative Writing: Creative Nonfiction</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 112</td>
<td>Introduction to the Novel and Short Story</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 114</td>
<td>Introduction to Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 116</td>
<td>Introduction to Drama</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 131</td>
<td>Introduction To World Literature 1</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 132</td>
<td>Introduction to World Literature (1500 to Present)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 135</td>
<td>Survey of American Literature to 1850</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 136</td>
<td>Survey of American Literature: 1850 to the Present</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 137</td>
<td>Survey Of English Literature To The Late 18th Century</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 138</td>
<td>Survey Of English Literature: Late Eighteenth Century To Present</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 151</td>
<td>Folktale</td>
<td>3</td>
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<tr>
<td>ENGL 155</td>
<td>The Bible as Literature: The Hebrew Canon and Intertestamental Writings</td>
<td>3</td>
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<tr>
<td>ENGL 157</td>
<td>The Bible as Literature: The New Testament</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 161</td>
<td>Film Appreciation</td>
<td>3</td>
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<tr>
<td>ENGL 162</td>
<td>History of Cinema</td>
<td>3</td>
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<tr>
<td>ENGL 163</td>
<td>Introduction to Shakespeare</td>
<td>3</td>
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<td>ENGL 168</td>
<td>Adolescent Literature</td>
<td>3</td>
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<tr>
<td>ENGL 169</td>
<td>Children’s Literature</td>
<td>3</td>
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<tr>
<td>ENGL 171</td>
<td>Introduction to African-American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 172</td>
<td>Intro to Chicano/a Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 173</td>
<td>Intro to Latin American Literature</td>
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</tr>
<tr>
<td>ENGL 174</td>
<td>Introduction to Modern Asian Literature</td>
<td>3</td>
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<tr>
<td>ENGL 175</td>
<td>Introduction to Women’s Literature</td>
<td>3</td>
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<tr>
<td>ENGL 176</td>
<td>Introduction to Mexican Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 179</td>
<td>Intro to Native American Literature, Mythology, and the Oral Tradition</td>
<td>3</td>
</tr>
<tr>
<td>FREN 51</td>
<td>Introductory French 1</td>
<td>3</td>
</tr>
<tr>
<td>FREN 52</td>
<td>Introductory French 2</td>
<td>3</td>
</tr>
<tr>
<td>FREN 101</td>
<td>French 1</td>
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<td>FREN 104</td>
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<td>German 2</td>
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<td>HIST 104</td>
<td>Western Civilizations to 1650</td>
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<td>HIST 105</td>
<td>Western Civilization Since 1650</td>
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<td>HIST 106</td>
<td>World Civilization to the 16th Century</td>
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<td>HIST 107</td>
<td>World Civilization from the 17th Century</td>
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<tr>
<td>HUMAN 101</td>
<td>Introduction to the Humanities</td>
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<tr>
<td>HUMAN 105</td>
<td>Early Humanistic Traditions</td>
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<tr>
<td>HUMAN 106</td>
<td>Humanities in the Modern World</td>
<td>3</td>
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<tr>
<td>HUMAN 110</td>
<td>East Meets West</td>
<td>3</td>
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<tr>
<td>HUMAN 130</td>
<td>Introduction to Western Religions</td>
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<td>HUMAN 140</td>
<td>Introduction to World Mythology</td>
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<td>ITAL 101</td>
<td>Italian 1(SU08)</td>
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</table>
In fulfillment of the Career and Technical Education Pathway degree requirements, select and complete a General Studies emphasis from the following pages. Coursework completed in fulfillment of a General Education requirement cannot be reapplied toward a General Studies emphasis.

For this non-transfer emphasis, complete a minimum of 18 units from the list below. Of that 18 units, select two disciplines and complete 6 units in each discipline. Students may not double-count units with General Education course.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate awareness of the interactive nature of communication involving effective listening, reading, writing, and speaking.

2. Demonstrate critical thinking in the analysis and production of communication.

3. Demonstrate the ability to find, evaluate, and use information in a variety of formats.

REQUIRED COURSES - COMPLETE 18 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tr>
<td>AGEC 225</td>
<td>Agriculture Computer Applications</td>
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<td>BUSAD 210</td>
<td>Business Communication</td>
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<tr>
<td>CMGPR 265</td>
<td>Multimedia on the World Wide Web</td>
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<td>COMM 102</td>
<td>Introduction to Human Communication</td>
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<td>COMM 104</td>
<td>Argumentation</td>
<td>3</td>
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<tr>
<td>COMM 106</td>
<td>Group &amp; Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 107</td>
<td>Introduction to Debate</td>
<td>3</td>
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<tr>
<td>COMM 110</td>
<td>Persuasion</td>
<td>3</td>
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<tr>
<td>CSCI 200</td>
<td>Technical Computer Literacy</td>
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<td>CSCI 201</td>
<td>General Computer Literacy</td>
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<tr>
<td>CSCI 203</td>
<td>Symbolic Logic</td>
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<td>CSCI 204</td>
<td>Discrete Structures for Computer Science</td>
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<td>CSCI 210</td>
<td>Windows Server OS</td>
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<tr>
<td>CSCI 221</td>
<td>Programming with Visual BASIC</td>
<td>3</td>
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<tr>
<td>CSCI 230</td>
<td>Database Management Systems</td>
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<td>CSCI 233</td>
<td>Web Database Development</td>
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<td>CSCI 237</td>
<td>Problem Solving and Programming</td>
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<td>CSCI 238</td>
<td>Problem Solving and Programming</td>
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<td>CSCI 239</td>
<td>Assembly Language Programming</td>
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<td>CSCI 247</td>
<td>Windows Programming with Visual C ++</td>
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<td>ENGL 103</td>
<td>Advanced Composition &amp; Critical Thinking</td>
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<td>LIBR 100</td>
<td>Research Concepts and Practice</td>
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<td>MATH 89</td>
<td>Intermediate Composition &amp; Critical Thinking</td>
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<td>MATH 90</td>
<td>Intermediate Algebra</td>
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<td>MATH 101</td>
<td>Mathematical Ideas and Applications</td>
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<td>MATH 105</td>
<td>Structure of Mathematics</td>
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<td>MATH 106</td>
<td>Structure of Mathematics</td>
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<td>MATH 111</td>
<td>Applied College Algebra</td>
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<td>MATH 121</td>
<td>Pre-Calculus 1</td>
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<td>MATH 130</td>
<td>Finite Mathematics</td>
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<tr>
<td>MATH 134</td>
<td>Elementary Statistics</td>
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<tr>
<td>MATH 138</td>
<td>Calculus for Business and Social Sciences</td>
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<tr>
<td>MATH 171</td>
<td>Calculus: First Course</td>
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<tr>
<td>MATH 172</td>
<td>Calculus: Second Course</td>
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<td>MATH 173</td>
<td>Calculus: Third Course</td>
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<td>MATH 174</td>
<td>Introduction to Linear Algebra and Differential Equations</td>
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<td>PHIL 103</td>
<td>Symbolic Logic</td>
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<td>PHIL 105</td>
<td>Reasoning</td>
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<td>PHIL 107</td>
<td>Philosophy of Science</td>
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<tr>
<td>SUPR 106</td>
<td>Group &amp; Organizational Communication</td>
<td>3</td>
</tr>
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</table>

TOTAL UNITS IN EMPHASIS ........................................................................... 18

A.A. DEGREE: GENERAL STUDIES, EMPHASIS IN LANGUAGE & RATIONALITY

ABOUT THIS EMPHASIS

Courses in language and rationality are those that study English composition, communication, and analytical thinking. Students will develop the principles and applications of language toward logical thought, clear and precise expression, and critical evaluation of communication whatever symbol system the students use.

Follow the Career and Technical Education Pathway for associate degree on page 101 of the 2014-2015 MJC Catalog. Satisfactory completion of this pathway will result in an associate degree from Modesto Junior College.
A.A. DEGREE: GENERAL STUDIES, EMPHASIS IN NATURAL SCIENCES

ABOUT THIS EMPHASIS

Courses in the natural sciences are those that examine the physical universe, its life forms, and its natural phenomena. Students will develop an appreciation and understanding of the scientific method and an understanding of the relationships between science and other human activities.

1. Follow the Career and Technical Education Pathway for associate degree on page 101 of the 2014-15 MJC Catalog. Satisfactory completion of this pathway will result in an associate degree from Modesto Junior College.

2. Coursework completed in fulfillment of a General Education requirement cannot be reapplied toward this General Education emphasis.

3. For this non-transfer emphasis, complete a minimum of 18 units from the list below according to either Concentration A or B. Students may not double-count units with General Education courses.

   • Concentration A: Of these 18 units, complete 6 units in each of two different disciplines or groups of disciplines* below.
   
   • Concentration B: Of these 18 units, complete 12 units in one discipline or group of disciplines* below.

* The following disciplines may be grouped together for the purpose of meeting Concentration A or B: Allied Health Sciences Group: BIO 101 OR 111 OR 116, CHEM 143, CHEM 144, PSYCH 103, and any courses listed below in ANAT, AP, MICRO, or PHYSO. Earth and Space Sciences Group: Any courses listed below in ASTRO, EASCI, GEOL, or METEO. Life Sciences Group: Any courses listed below in BIO, BOT, or ZOOL.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Apply the scientific method as a foundation for the natural sciences.
2. Describe evolution as it applies to life and/or the physical universe.
3. Describe the physical universe and/or its life forms and its natural phenomena.
4. Demonstrate the relationships between science and other human activities.

REQUIRED COURSES

For this non-transfer emphasis, complete a minimum of 18 units from the list below. Of that 18 units, select two disciplines. Complete 6 units in each.

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>A6 376 Basic Science and Laboratory Techniques</td>
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<tr>
<td>ANAT 125 Human Anatomy</td>
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<tr>
<td>ANSC 200 Introduction to Animal Science</td>
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<tr>
<td>ANTHR 101 Biological Anthropology</td>
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<tr>
<td>AP 105 Biological Anthropology Laboratory</td>
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<td>AP 50 Elementary Human Anatomy-Physiology</td>
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<td>AP 150 Integrative Anatomy &amp; Physiology</td>
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<tr>
<td>ASTRO 151 Introduction to Astrophysics Lab</td>
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<tr>
<td>ASTRO 160 Introduction to Modern Astronomy</td>
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<td>BIO 100 Basic Biology</td>
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<td>BIO 101 Biological Principles</td>
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<td>BIO 111 General Biology</td>
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<tr>
<td>BIO 114 General Ecology</td>
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<tr>
<td>BIO 115 Genetics, Evolution, and Society</td>
<td>3</td>
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<td>BIO 116 Biology: A Human Perspective</td>
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<td>BIO 140 Introduction to Marine Biology</td>
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<td>CHEM 142 Pre-Pharmaceutical Chemistry</td>
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<td>CHEM 143 Introductory College Chemistry</td>
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<td>CHEM 144 Fundamentals of Organic &amp; Biochemistry</td>
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<td>CHEM 150 Exploring Our Chemical Environment</td>
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<td>CHEM 164 Introductory Chemistry Laboratory</td>
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<td>EASCI 161 Earth Science</td>
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<td>EASCI 162 Introduction to Oceanography</td>
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<tr>
<td>ECON 108 Environmental Conservation</td>
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<td>FDNSR 219 Nutrition</td>
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<td>METEO 161 Introduction to Meteorology</td>
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<td>NR 200 Soils</td>
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<td>NR 215 Wildlife Production</td>
<td>3</td>
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<td>NR 220 Introductory Forestry</td>
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<tr>
<td>PE 124 Introduction to Kinesiology</td>
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<td>PHYS 101 General Physics: Mechanics</td>
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<td>PHYS 102 General Physics: Waves, Thermodynamics and Optics</td>
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<td>PHYS 103 General Physics: Electricity, Magnetism and Modern Physics</td>
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<td>PHYS 142 Mechanics, Heat and Waves</td>
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<td>PHYS 143 Electricity, Magnetism, Optics, Atomic and Nuclear Structure</td>
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<td>PHYS 160 Descriptive Introduction to Physics</td>
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<td>PHYS 165 Introductory Physics</td>
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<tr>
<td>PHYS 166 Conceptual Physics: A Hands-on Approach</td>
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<tr>
<td>PHYSO 101 Introductory Human Physiology</td>
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<td>PHYSO 103 Introduction to Neuroscience</td>
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<td>PLSC 200 Introduction to Plant Science</td>
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<tr>
<td>PLSC 220 Fruit Science</td>
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<td>PSYCH 103 Introduction to Neuroscience</td>
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<tr>
<td>ZOOL 101 General Zoology</td>
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</table>

TOTAL UNITS IN EMPHASIS: 18

A.A. DEGREE: GENERAL STUDIES, EMPHASIS IN SOCIAL & BEHAVIORAL SCIENCE

ABOUT THIS EMPHASIS

Courses in the social and behavioral sciences are those that focus on people as members of society. Courses will stimulate critical thinking about the ways people act and have acted in response to their societies and will promote appreciation of how societies and social subgroups operate.

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) which include completion of the requirements below

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Describe and demonstrate the methodology and approach employed in the study of Behavioral and Social Sciences.
2. Critically examine local, national, and global issues as they pertain to the study of Behavioral and Social Sciences.
REQUIRED COURSES - COMPLETE 18 UNITS

*For this non-transfer emphasis, complete a minimum of 18 units from the list below. Of that 18 units, select two disciplines and complete 6 units in each discipline. Students may not double-count units with General Education courses.

ADJU 201 Introduction to Administration of Justice .......................................................... 3
ADJU 202 Principles/Procedures of Justice ......................................................................... 3
ADJU 203 Concepts of Criminal Law .................................................................................. 3
ADJU 217 Substance Abuse ................................................................................................. 3
ADJU 215 Introduction to Corrections .................................................................................. 3
AGEC 210 Principles of Agricultural Economics .................................................................. 3
AGGE 146 Agriculture, Environment & Society .................................................................... 3
ANTHR 102 Cultural Anthropology ...................................................................................... 3
ANTHR 104 Linguistic Anthropology .................................................................................. 3
ANTHR 130 Archaeology and Cultural Prehistory ............................................................... 3
ANTHR 140 Magic, Witchcraft, and Religion ........................................................................ 3
ANTHR 150 Native People of North America ...................................................................... 3
BUSBAD 240 Principles of Management ............................................................................. 3
CLDVD 103 Child Growth and Development ...................................................................... 3
CLDVD 160 Introduction to Children With Special Needs .................................................. 3
CLDVD 262 Diversity in Educational Settings ....................................................................... 3
COMM 103 Interpersonal Communication ........................................................................... 3
COMM 130 Intercultural Communication ............................................................................ 3
ECON 101 Principles of Microeconomics ........................................................................... 3
ECON 102 Principles of Microeconomics ........................................................................... 3
ECON 115 Economic History of the United States ............................................................... 3
ENS 110 California Water .................................................................................................... 3
GEOG 102 Cultural Geography ........................................................................................... 3
GEOG 104 California Geography ....................................................................................... 3
GEOG 105 Economic Geography ....................................................................................... 3
GEOG 110 World Regional Geography ............................................................................... 3
HIST 101 History of the United States to 1877 .................................................................... 3
HIST 102 History of the United States since 1865 ............................................................... 3
HIST 104 Western Civilization to 1650 ............................................................................... 3
HIST 105 Western Civilization Since 1650 ......................................................................... 3
HIST 106 World Civilization to the 16th Century ............................................................... 3
HIST 107 World Civilization from the 16th Century ............................................................ 3
HIST 112 Twentieth Century America .................................................................................. 3
HIST 113 Social and Cultural History of the United States prior to the 20th Century ............... 3
HIST 115 Economic History of the United States ............................................................... 3
HIST 116 Women in American History .............................................................................. 3
HIST 119 Social and Cultural History of 20th Century America ........................................... 3
HIST 125 History of Mexico ............................................................................................... 3
HIST 128 History of the American Far Western Frontier .................................................... 3
HIST 129 History of California ........................................................................................... 3
HIST 145 History of Latin America ...................................................................................... 3
HIST 154 African Americans through the 19th Century ..................................................... 3
HIST 155 African Americans in 20th and 21st Centuries ..................................................... 3
HUMS 101 Introduction to Human Services ....................................................................... 3
HUMS 114 Death and Dying .............................................................................................. 3
HUMS 142 Introduction to Psychosocial Rehabilitation ....................................................... 3
HUMS 143 Psychosocial Rehabilitation Practice .................................................................. 3
POLS 101 American Politics ................................................................................................. 3
POLS 102 The Constitution and the Rights of Americans .................................................... 3
POLS 110 International Relations ......................................................................................... 3
POLS 111 War and Peace: From Lenin to Al Qaeda .............................................................. 3
POLS 120 California Politics and Problems .......................................................................... 3
POLS 130 Political Theory .................................................................................................. 3
POLS 131 American Political Thought .................................................................................. 3
POLS 140 Comparative Politics .......................................................................................... 3
POLS 180 Human Rights .................................................................................................... 3
PSYCH 101 Psychology in Everyday Life ............................................................................. 3
PSYCH 102 General Psychology .......................................................................................... 3
PSYCH 104 Introduction to Social Psychology ...................................................................... 3

ELECTIVE COURSES – COMPLETE 9 UNITS

PSYCH 105 Abnormal Psychology ....................................................................................... 3
PSYCH 111 Psychology of Gender ....................................................................................... 3
SOCIO 101 Introduction to Sociology ................................................................................... 3
SOCIO 102 Social Problems in United States ...................................................................... 3
SOCIO 125 Sociology of the Family .................................................................................... 3
SOCIO 150 Ethnicity and Culture in America ..................................................................... 3
SOCIO 154 African-American Cultures and Communities .................................................. 3
SOCIO 156 Mexican Culture in the United States ............................................................... 3
SOCSC 105 Women's Studies .............................................................................................. 3
SOCSC 110 Introduction to Education .................................................................................. 3

TOTAL UNITS IN AREA OF EMPHASIS ........................................................................... 18

Geography

PROGRAM

A.A. DEGREE: UNIVERSITY PREPARATION, EMPHASIS IN GEOGRAPHY

ABOUT THIS EMPHASIS

Geography is the study of global patterns created through Earth processes and human behaviors. Geographers utilize a unique holistic approach which examines interrelationships found within the culture, economics, politics, history, and physical environment of specific geographical regions.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Describe and demonstrate the methodology and approach used in geographical study.
2. Describe and select examples from maps to validate geographical processes and relationships.
3. Critically examine geographic locations based upon physical, cultural, historical, political and economic factors.

EMPHASIS REQUIREMENTS

To earn an Associate Degree with this emphasis, the student must complete the requirements detailed in the University Preparation Pathway (p. 97) which include completion of the requirements below. See advisor for selection of courses.

REQUIRED COURSES – COMPLETE 9 UNITS

GEOG 101 [NP] Physical Geography ...................................................................................... 3
GEOG 102 [NP] Cultural Geography ..................................................................................... 3
GEOG 105 [NP] Economic Geography .................................................................................. 3

ELECTIVE COURSES – COMPLETE 9 UNITS

Please refer to www.assist.org for your chosen transfer university and specific major, and use that information to select three courses from the following list of electives. Please see your instructor to help you determine which courses may be most appropriate based upon your intended focus of study within the discipline and transfer institution. Additional courses may be required by your transfer university.

ECON 101 [NP] Economic Principles: Macroeconomics ..................................................... 3 OR
ECON 102 [NP] Principles of Microeconomics .................................................................... 3
GEOG 104 [NP] California Geography .................................................................................. 3
GEOG 109* [NP] Introduction to Geographic Information Systems .................................... 3 OR
GEOG 110 (NP) World Regional Geography ....................................................... 3
HIST 104 (NP) Western Civilizations ................................................................. 3
HIST 105 (NP) Western Civilization Since 1650 ............................................. 3
HIST 125 (NP) History of Mexico .................................................................. 3
HIST 129 (NP) History of California ............................................................... 3
HIST 145 (NP) History Of Latin America ...................................................... 3
POLSC 110 (NP) International Relations ....................................................... 3
POLSC 111 (NP) War and Peace: from Lenin to Al Qaeda ............................. 3
POLSC 140 (NP) Comparative Politics......................................................... 3

TOTAL UNITS REQUIRED IN AREA OF EMPHASIS ................................. 18

Geography Courses (GEOG)

GEOG 101—PHYSICAL GEOGRAPHY 3 UNITS
54 Lecture Hours
Recommended for Success: 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 GEOGR 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
Formerly listed as: GEOG 104: Ca Geography
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Introduction to California's unique geography; examining political, economic, cultural, physical, and historical processes and characteristics. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) (CID-GEOG 140) General Education: (MJC-GE: B)(CSU-GE: D5)(IGETC: 4E)

GEOG 105—ECONOMIC GEOGRAPHY 3 UNITS
54 Lecture Hours

GEOG 109—INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS 3 UNITS
36 Lecture Hours, 54 Lab Hours
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)

A.S.-T DEGREE: GEOLOGY

The Associate in Science in Geology for Transfer degree includes lower division coursework that is required for transfer and which focuses on the mastery of the identification of earth materials and the use of geologic maps, stratigraphic sections, and remote sensing imagery, using these techniques to model real-world applications.

The Associate in Science in Geology for Transfer degree is intended for students who plan to complete a bachelor’s degree in Geology at a California State University campus. Students completing this degree are guaranteed admission to the CSU System, but not to a particular campus or major. Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Identify the rock-forming minerals, ore minerals, igneous rocks, sedimentary rocks, and metamorphic rocks, utilizing the physical and chemical properties of each.
2. Analyze and interpret stratigraphic columns, geologic profiles, and geologic and topographic maps to determine the geological and structural history of a given region.
3. Analyze the geological hazards of a given region based on identification of the tectonic and erosional processes acting on the landscape.

The following is required for the Associate in Science in Geology for Transfer degree:

• 60 semester or 90 quarter CSU-transferable units.
• The California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
Geology Courses (GEOL)

GEOL 160—INTRODUCTION TO GEOLOGY 4 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, and erosion. (A-F or P/NP) Lecture. Transfer: (CSU, UC) (CID-GEOL 101) General Education: (MJC-GE: A) (CSU-GE: B1) (IGETC: SA)

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) (CID-GEOL 101) General Education: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: SA, SC)

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) (CID-GEOL 200) General Education: (MJC-GE: A) (CSU-GE: B1) (IGETC: SA)

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) (CID-GEOL 111) General Education: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: SA, SC)

GEOL 171X,A,B—GEOLGY FIELD STUDIES 0.5,1,2 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. 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 are required. (A-F or P/NP) Discussion. Transfer: (CSU)

GEOL 187—GEOLOGY OF THE DEATH VALLEY REGION 2 UNITS
36.00 Disc Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have successfully completed any geology or earth science course, or get consent of the instructor.
Application of the principles of geology to interpret rock sequences and tectonic structures in Death Valley and the Mojave Desert of California. Requires ability to work and study under rigorous conditions. Field trips are required. (A-F or P/NP) Transfer: (CSU)

GEOL 192—GEOLOGY OF THE PACIFIC NORTHWEST 3 UNITS
54.00 Disc Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to successfully complete any geology or earth science course, or get consent of the instructor.
Application of the principles of geology to interpret rock sequences and tectonic structures in the Pacific Northwestern Cordillera, including the Cascades Range Volcanoes, the Columbia Plateau, and the northern Rocky Mountains of the United States and Canada. Requires ability to work and study under rigorous conditions. Field trips are required. (A-F or P/NP) Transfer: (CSU)

REQUIRED CORE: COMPLETE 28 UNITS

GEOL 161 (NP) Physical Geology with Laboratory ................................................................. 4
GEOL 166 (NP) Historical Geology with Laboratory .............................................................. 4
CHEM 101 (NP) General Chemistry 1 ................................................................................... 5
CHEM 102 (NP) General Chemistry 2 ................................................................................... 5
MATH 171 (NP) Calculus: First Course .................................................................................. 5
MATH 172 (NP) Calculus: Second Course ............................................................................. 5
TOTAL UNITS IN A.S.-T MAJOR .................................................................................. 28

Note: Double counting courses in GE and the major is permissible. Guidance and Activities requirements are not required for the Associate in Science in Geology for Transfer degree.
SKILLS RECOGNITION: GERONTOLOGY

Completion of the Gerontology program will provide the holder with the skills, knowledge, and education necessary to work with the elderly. It also provides training and growth opportunities for existing human service employees. In addition, this Skills Recognition Award in Gerontology will serve as another step in an educational and career ladder leading to a Human Services Skills Recognition Award, certificate and or degree. All course work will be applicable as electives and/or meet the requirements for the Human Services degrees at MJC.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate an understanding of gerontology, family systems, and the psychology of aging as it relates to individual, family, and group counseling.
2. Exhibit effective, communication, clinical skills, body language, and written abilities with the elderly.
3. Demonstrate an understanding of theoretical philosophies, biology, life span, environmental or psychosocial stressors, and the relation to gerontological counseling.
4. Conduct a basic assessment, interview, intervention, case plan, individual counseling, and group session with the aged.

PROGRAM REQUIREMENTS

To earn a Skills Recognition Award in Gerontology, the student must complete the following coursework. Each course must be completed with a C or better.

REQUIRED COURSES: COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition and Reading</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 104</td>
<td>Aging in America</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 110</td>
<td>Intro to Interviewing, Counseling</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR SKILLS RECOGNITION AWARD ........................................ 9

Gerontology Courses (GERON)

GERON 101—AGING IN AMERICA

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)

Guidance/Counseling Courses (GUIDE)

The Guidance program is an integral part of the counseling services. Students who take guidance skills courses will learn to:

- Acquire, organize and demonstrate problem-solving and decision-making skills;
- Explore, evaluate and pursue career and educational options;
- Develop social, intellectual and emotional competencies; develop needed skills and strategies to maximize the educational experience;
- Understand themselves, others and their environment to enable them to develop individual value systems and life styles.

One of the following courses must be taken to fulfill the guidance graduation requirement: GUIDE 109, 110, 111, 112, 116, or 120. Students should enroll in a Guidance class their first semester of attendance at MJC.

GUIDE 109—INTERNATIONAL STUDENT/NEW AMERICAN FOCUS

1 UNIT

18 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to 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

0.5 UNITS

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)

GUIDE 112—JOB HUNTING SKILLS

0.5 UNITS

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)
A.S. DEGREE: UNIVERSITY PREPARATION, EMPHASIS IN HEALTH AND PHYSICAL EDUCATION

Health Science draws from the biological, environmental, psychological, social, physical, and medical sciences to develop individual, group, institutional, community, and systemic strategies to help meet health knowledge and attitudes as well as skills and behavior. Physical Education, also known as Kinesiology, is the scientific study of human movement, addressing physiological, mechanical, and psychological mechanisms.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Demonstrate a working knowledge of the anatomy, physiology, and microbiology of the human body in order to enter the nursing program.
2. Demonstrate a working knowledge of the anatomy and physiology of the human body in order to enter a university-level physical education program.
3. Succeed on the nursing board exams in sections related to these disciplines.

To earn an Associate in Science Degree in this major, the student must complete the requirements detailed in the University Preparation Pathway which include completion of the requirements below. See advisor for selection of courses.

**General Education:**

- BIO 110 [NP] General Biology .................................................. 4
- CHEM 143 [NP] Introductory College Chemistry .............................. 5
- PHYS 101 [NP] Introductory Human Physiology ............................. 5

**Total Units in Emphasis** ......................................................... 19

**Transfer:** This University Prep Degree serves two distinct student populations: The student seeking a 4-year University Degree in Physical Education/Kinesiology and the student who has completed the Nursing Pathway prerequisites and wishes to receive an AS degree prior to entering an ADN Program.

**Health Education Courses (HE)**

The expanding field of health education through public or community agencies and the schools will require trained professionals for positions of leadership and supervision. The professionals will be dealing with such complex issues as physical and mental well-being, substance abuse, exercise, environmental and consumer health, disease control, human sexuality, family relations, death and dying, first aid and emergency care. Since careers in Health Education field usually require a minimum of a four-year degree, health education majors at MJC are given an introduction to health through basic health and safety courses and are advised to follow general education and transfer requirements for four-year colleges and universities.

**HE 101—EMERGENCY MEDICAL RESPONSE; 3 UNITS**

CPR PRO/HEALTHCARE PROVIDER

54 Lecture Hours

Formerly listed as: HE - 101: Emergency Response/CPR FPR

Course designed to provide first responder capabilities necessary in an emergency to help sustain life, reduce pain, minimize the consequences of injury or sudden illness, and to provide emergency care of the sick and injured. CPR for the Professional/Health Care Provider, Automated External Defibrillator, and Emergency Medical Response certificates issued upon satisfactory completion. Materials fee required. Student may repeat if required by regulation. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) (CC HHP 62) (CID-KIN 101)

**HE 110—HEALTHFUL LIVING; 3 UNITS**

54 Lecture Hours

A consideration of factors in the selection of a plan for healthful living. Emphasis on self-assessment through gathering and analyzing information while setting new health goals. Focus is placed on emotional, physical, social, spiritual, intellectual and environmental wellness in achieving human potential. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) (CC HHP 60) General Education: (MJC-GE: E) (CSU-GE: E)
HE 111—WOMEN’S HEALTH ISSUES 3 UNITS
S4 Lecture Hours

HE 118—EXERCISE AND NUTRITION FOR HEALTHY LIVING 3 UNITS
S4 Lecture Hours

History

PROGRAMS AND COURSES

A.A.-T DEGREE: HISTORY

The Associate in Arts in History for Transfer (A.A.-T in History) degree includes lower division coursework that is required for transfer and will provide students with the opportunity to learn valuable skills in critical thinking and writing as they explore a variety of historical topics in world and western civilizations and American history. The A.A.-T in History includes courses that explore world and U.S. history, political institutions, and social and cultural influences.

The Associate in Arts in History for Transfer (A.A.-T in History) degree is intended for students who plan to complete a bachelor's degree in history at a California State University campus. Students completing this degree are guaranteed admission to the CSU System, but not to a particular campus or major. Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

PROGRAM LEARNING OUTCOMES

Upon completion of this award, the student should be prepared to:

1. Describe and explain the role of politics, economics, and cultural developments on societies around the world and through time.
2. Critically analyze historical events in order to write an interpretation of a specific historical topic.
3. Engage in public discourse about current issues impacting our nation with the knowledge of how the past has shaped these issues.

The following is required for the Associate in Arts in History for Transfer (A.A.-T in History) degree:

1. Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
   - (A) The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements.
   - (B) A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.

2. Obtaining of a minimum grade point average of 2.0.

ADTs also require that students must earn C or better in all courses required for the major or area of emphasis. A “P” (Pass) grade is not an acceptable grade for courses in the major.

REQUIRED COURSES – COMPLETE 6 UNITS

LIST A - SELECT 2 (6 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 101 [NP] History of the United States to 1877</td>
<td>3</td>
</tr>
<tr>
<td>HIST 102 [NP] History of the United States since 1865</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST B - SELECT 1 COURSE FROM EACH AREA (6 UNITS) (INCLUDING COURSES FROM LIST A IF NOT USED ABOVE)

AREA 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 106 [NP] World Civilization to the 16th Century</td>
<td>3</td>
</tr>
<tr>
<td>HIST 107 [NP] World Civilization from the 16th Century</td>
<td>3</td>
</tr>
<tr>
<td>HIST 125 [NP] History of Mexico</td>
<td>3</td>
</tr>
<tr>
<td>HIST 143 [NP] History of Latin America</td>
<td>3</td>
</tr>
<tr>
<td>HIST 154 [NP] African Americans through the 19th Century</td>
<td>3</td>
</tr>
<tr>
<td>HIST 155 [NP] African Americans in the 20th and 21st Centuries</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 150 [NP] Native Americans of North America</td>
<td>3</td>
</tr>
</tbody>
</table>

AREA 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 112 [NP] Twentieth Century America</td>
<td>3</td>
</tr>
<tr>
<td>HIST 113 [NP] Social and Cultural History of the US prior to the 20th Century</td>
<td>3</td>
</tr>
<tr>
<td>HIST 115 [NP] Economic History of the United States</td>
<td>3</td>
</tr>
<tr>
<td>HIST 116 [NP] Women in American History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 119 [NP] Social and Cultural History of 20th Century America</td>
<td>3</td>
</tr>
<tr>
<td>HIST 125 [NP] History of Mexico</td>
<td>3</td>
</tr>
<tr>
<td>HIST 128 [NP] History of American Far Western Frontier</td>
<td>3</td>
</tr>
<tr>
<td>HIST 129 [NP] History of California</td>
<td>3</td>
</tr>
<tr>
<td>HIST 143 [NP] History of Latin America</td>
<td>3</td>
</tr>
<tr>
<td>HIST 154 [NP] African Americans through the 19th Century</td>
<td>3</td>
</tr>
<tr>
<td>HIST 155 [NP] African Americans in the 20th and 21st Centuries</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 102 [NP] Cultural Anthropology</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS IN THE A.A.-T MAJOR: 37-39

*Note: Double counting courses in GE and the major is permissible. Guidance and Activities requirements are not required for this degree.*
HIST 101 — HIST 116 provide a broad overview of American history. HIST 101 covers the United States from its origins to the end of Reconstruction, while HIST 102 focuses on the post-Civil War era through the 20th century. HIST 103 introduces World History through the 16th century, emphasizing the development of Western civilizations. HIST 104 continues this narrative into the 16th century, focusing on Western civilization's development. HIST 105 surveys Western civilization since the 16th century, examining its development and influence on modern societies. HIST 106 explores the development of the modern world, while HIST 107 and HIST 1107 examine World History from the 16th century to the present.

HIST 111 — HIST 116 delve into specific historical periods and events, including the colonial period, the American Revolution, the Civil War, Reconstruction, and the 20th century. These courses provide a deeper understanding of the social, economic, and political developments of these periods. HIST 112 explores the history of women in America, with a focus on their experiences and contributions. HIST 113 examines the social and cultural history of the United States prior to the 20th century, while HIST 114 and HIST 115 analyze the economic history of the United States and America, respectively.

HIST 116 — HIST 117 provide a comprehensive view of the world from the 16th century to the present. HIST 116 focuses on women in American history, emphasizing their roles and contributions in various contexts. HIST 117 continues this narrative into the 20th century, with a focus on contemporary global issues.

All courses are designed to satisfy general education requirements and are transferable to other institutions. Students are advised to satisfactorily complete ENGL 101 before enrolling in these courses.
Constitutional law is emphasized. The effects of U.S. foreign and domestic policies on movement toward full protection of all peoples of America under State and Federal government in the inclusion of ethnic and gender participation. The gradual human rights movements. Critical evaluation of the developing role of local, State, and African American, Latino/Chicano, African American, European, and Asian American political and economic institutions and their interaction with Indigenous society and culture in the 20th and 21st century. HIST 119 specifically analyzes advised to satisfactorily complete ENGL 101.

20TH CENTURY AMERICA

HIST 119—SOCIAL AND CULTURAL HISTORY OF 3 UNITS

20TH CENTURY AMERICA
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: (MUC-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 Porfi riat, the Mexican Revolution and its aftermath, and the post WW II period. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MUC-GE: B) (CSU-GE: D6) (IGETC: 4C, 4F)

HIST 128—HISTORY OF AMERICAN FAR WESTERN FRONTIER 3 UNITS

54 Lecture Hours
A regional history of frontier life in the trans-Mississippi West during the 19th century, including early exploration through the fur trade, territorial expansion, and the mining and farming frontier. Special emphasis is given to the contributions 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: (MUC-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 interaction 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: (MUC-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: (MUC-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.


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: (MUC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F) (AI: Group a)
3. Demonstrate an understanding of theoretical orientations, social problems, and the relation to clinical or group practice with individuals, families, groups, communities, and organizations.

4. Comprehend the wide range of human service employment options, historical perspectives, and the populations served.

5. Conduct an elementary assessment, interview, intervention, referral, individual counseling, and group session.

PROGRAMS OFFERED
To earn an associates degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 17 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMSR 101</td>
<td>Introduction to Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 110</td>
<td>Introduction to Interviewing, Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 114</td>
<td>Death and Dying</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 144</td>
<td>Community Agency Practice</td>
<td>1</td>
</tr>
<tr>
<td>HUMSR 145</td>
<td>Community Agency Practice</td>
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<tr>
<td>HUMSR 110</td>
<td>Introduction to Interviewing, Counseling</td>
<td>3</td>
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<tr>
<td>PSYCH 110</td>
<td>Human Sexual Behavior</td>
<td>3</td>
</tr>
<tr>
<td>SOCIO 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOCIO 150</td>
<td>Minorities in America</td>
<td>3 OR</td>
</tr>
<tr>
<td>SOCIO 156</td>
<td>Mexican Culture in the United States</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES - COMPLETE 3 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHR 102</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 103</td>
<td>Introduction to Human Service Careers</td>
<td>0.5</td>
</tr>
<tr>
<td>HUMSR 113</td>
<td>Co-Occurring Disorders</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 119</td>
<td>Group Leadership &amp; Group Process</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 120</td>
<td>Professional Devt. in the Helping Professions</td>
<td>3</td>
</tr>
<tr>
<td>POLSC 120</td>
<td>California Politics and Problems</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 101</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 104</td>
<td>Introduction to Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 110</td>
<td>Human Sexual Behavior</td>
<td>3</td>
</tr>
<tr>
<td>SOCIO 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOCIO 125</td>
<td>Sociology of the Family</td>
<td>3</td>
</tr>
</tbody>
</table>

MINIMUM UNITS IN A.A. MAJOR ................................................. 20

CERTIFICATE OF ACHIEVEMENT: HUMAN SERVICES

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate an understanding of the Human Services, delivery systems, and application of the code of ethics as it relates to the Human Service profession.

2. Exhibit effective, communication, body language, and written abilities.

3. Demonstrate an understanding of theoretical orientations, social problems, and the relation to clinical or group practice with individuals, families, groups, communities, and organizations.

4. Comprehend the wide range of Human Service employment options, historical perspectives, and the populations served.

5. Conduct an elementary assessment, interview, intervention, referral, individual counseling, and group session.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES - COMPLETE 27 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>HUMSR 103</td>
<td>Introduction to Human Service Careers</td>
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<tr>
<td>GUIDE 110</td>
<td>Educational Planning</td>
<td>0.5</td>
</tr>
<tr>
<td>HUMSR 101</td>
<td>Introduction to Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 110</td>
<td>Introduction to Interviewing, Counseling</td>
<td>3</td>
</tr>
<tr>
<td>SOCIO 102</td>
<td>Social Problems in the United States</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 116</td>
<td>Drugs and Alcohol in Society</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 120</td>
<td>Professional Development in the Helping Professions</td>
<td>3</td>
</tr>
<tr>
<td>SOCIO 150</td>
<td>Ethnicity and Culture in America</td>
<td>3 OR</td>
</tr>
<tr>
<td>SOCIO 156</td>
<td>Mexican Culture in the United States</td>
<td>3</td>
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<tr>
<td>SOCIO 125</td>
<td>Sociology of the Family</td>
<td>3</td>
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<tr>
<td>HUMSR 144</td>
<td>Community Agency Practice</td>
<td>1</td>
</tr>
<tr>
<td>HUMSR 145</td>
<td>Community Agency Practice</td>
<td>1, 2</td>
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<tr>
<td>PSYCH 110</td>
<td>Human Sexual Behavior</td>
<td>3 OR</td>
</tr>
<tr>
<td>PSYCH 130</td>
<td>Personal Adjustment</td>
<td>3 OR</td>
</tr>
<tr>
<td>PSYCH 141</td>
<td>Human Life Span</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD........................ 27

Human Services Courses (HUMSR)

The Modesto Junior College Human Services programs provide knowledge and skills involved with the delivery of a wide variety of social services through various community social work and counseling agencies.

The two-year programs are designed to prepare students for entry-level employment in human service organizations as well as to upgrade current employees. They also provide a basis for future academic training leading to degrees in Social Work, Sociology, and Psychology.

HUMSR 40—INDEPENDENT LIVING SKILLS AND ACTIVITIES 1.5 UNITS

27 Lecture Hours

Formerly listed as Independent Living Skills

Non-degree course.

Provides foster youth ages 16-18 with the knowledge, information, survival skills and activities for daily living and foundation to transition from foster care to living independently in the community. Field trips 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 0.5 UNITS

9 Lecture Hours

Introduction to careers in the human services profession, personal qualities, clinical skills, and academic requirements necessary for entry-level human service positions. (A-F or P/NP) Lecture. Transfer: (CSU)
HUMSR 104—AGING IN AMERICA 3 UNITS
54 Lecture Hours
Also offered as: GERON 101
Analysis of the aging process from a multidisciplinary approach, including gerontology, sociology, human services, psychology, and physiology. Students will have an opportunity to explore their beliefs, feelings, and values regarding the aged population. Field trips might be required. (A-F or P/NP) Transfer: (CSU)

HUMSR 110—INTRODUCTION TO INTERVIEWING, COUNSELING 3 UNITS
54 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactory completion of ENGL 101.
Introduction to the principles and practices of interviewing, counseling, and theoretical frameworks. Designed to assist in the preparation of paraprofessionals in the Human Services and other interrelated fields. Clinical skills, assessment tools, techniques, crisis intervention strategies, and resolution will be covered. Lecture. (A-F or P/NP) Transfer: (CSU)

HUMSR 111—COUNSELING IN CHEMICAL DEPENDENCY 3 UNITS
54 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactory completion of ENGL 101.
Concepts of counseling, therapy, personality development, and theoretical frameworks relevant to chemical dependency. Designed to assist the paraprofessional in the chemical dependency profession and other related fields. Clinical skills, assessment tools, techniques, crisis intervention strategies, and resolution will be covered. Lecture. (A-F or P/NP) 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)

HUMSR 117—INTERVENTION AND TREATMENT STRATEGIES IN CHEMICAL DEPENDENCY 3 UNITS
54 Lecture Hours
Recommended for Success: Satisfactory completion of ENGL 101
Prerequisite: Before enrolling in this course, students are strongly advised to satisfactory completion of HUMSR 111 and 116.
Continued development in the application of therapeutic techniques, clinical skills, and strategies relative to the treatment of chemical dependency. Emphasizes the intervention process, assessment tools, crisis counseling, theoretical foundations, recovery dynamics, and family systems. Lecture. (A-F or P/NP) Transfer: (CSU)

HUMSR 118—PHARMACOLOGY OF ABUSED SUBSTANCES 3 UNITS
54 Lecture Hours
Also offered as: PSYCH 118
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete HUMSR 116 or satisfactorily complete PSYCH 101.
An introduction to psychopharmacology and the process of drug addiction. Topics include classification of abused and psychotherapeutic drugs, basic principles of pharmacology, behavioral and physiological effects of drugs, major neurotransmitter systems and how they are influenced by drugs. Field trips are not required. (A-F or P/NP) 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: Before enrolling in this course, students are strongly advised to satisfactory completion of ENGL 101.
Focuses on the application of clinical skills, theoretical foundations, strategies, techniques, ethical standards, and professional development in the Human Services and Chemical Dependency profession. Lecture. (A-F or P/NP) 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

18 Discussion Hours

Formerly listed as: HUMSR 144: Community Agency Practicum Discussion

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete HUMSR 110 or satisfactorily complete HUMSR 111 and be currently enrolled in the CASRA or CAADE program at the college.

Analysis of fieldwork experiences in HUMSR 145A, 145B, or 145C. Sharing, evaluation, and discussion of supervised fieldwork experiences and placements. Continued development and enhancement of clinical skills, theoretical integration, knowledge base, professional values, and competence in the helping profession. Field trips are not required. (A-F or P/NP) 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)

**EMPHASIS REQUIREMENTS**

To earn an Associate Degree with this emphasis, the student must complete the requirements detailed in the University Preparation Pathway (p. 97) which include completion of the requirements below. See advisor for selection of courses.

**ABOUT THIS EMPHASIS**

The humanities include, but are not limited to, the history, theory, comparison, and criticism of a broad range of subjects in the liberal arts, including pictorial, plastic, musical, and performance arts; literature; philosophy; foreign languages and cultures; mythology and comparative religion; and those aspects of the social sciences (such as history and cultural anthropology) that use historical and interpretive rather than quantitative methods of inquiry. The humanities enable us to reflect upon our lives and ask fundamental questions of value, purpose, and meaning in a rigorous and systematic way.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Analyze the ways that individuals and various cultural groups act in response to their societies and environment.
2. Demonstrate awareness of the various ways that culture, ethics, history, belief, and ethnicity affect individual experience and society as a whole.
3. Demonstrate the ability to interpret and analyze works of art for meaning and to forge aesthetic judgments.
4. Describe how cultural beliefs, values and practices have influenced societies in various times.
5. Demonstrate critical thinking in the analysis of cultural production using both thematic and historical synthesis.

**PROGRAM REQUIREMENTS**

To earn an Associate in Arts Degree with this emphasis, the student must complete the requirements detailed in the University Preparation Pathway in the MJC Catalog which include completion of the requirements below. See advisor for selection of courses.

**REQUIRED COURSES - COMPLETE 3 COURSES**

HUMAN 105 [NP] Early Humanistic Traditions ................................................................. 3
HUMAN 106 [NP] Humanities in the Modern World ......................................................... 3
HUMAN 101 [NP] Introduction to the Humanities ............................................................. 3
HUMAN 110 [NP] East Meets West .................................................................................. 3
HUMAN 130 [NP] Introduction to Western Religions ....................................................... 3
HUMAN 140 [NP] Introduction to World Mythology ....................................................... 3

**ELECTIVE COURSES - COMPLETE 9 UNITS**

**ELECTIVE COURSES GROUP 1 - TAKE ONE COURSE FROM THE FOLLOWING**

ENGL 116 [NP] Introduction to Drama ............................................................................. 3
ENGL 131 [NP] Introduction To World Literature 1 ......................................................... 3
ENGL 132 [NP] Introduction to World Literature (1500 to Present) .............................. 3
ENGL 135 [NP] Survey of American Literature to 1850 ................................................. 3
ENGL 136 [NP] Survey of American Literature: 1850 to the Present ............................. 3
ENGL 137 [NP] Survey Of English Literature To The Late 18th Century ..................... 3
ENGL 138 [NP] Survey Of English Literature: Late Eighteenth Century To Present .... 3
FREN 101 [NP] French 1 ................................................................................................. 5
GERM 101 [NP] German 1 .............................................................................................. 5
ITAL 101 [NP] Italian 1 .................................................................................................. 5
SPAN 101 [NP] Spanish 1 .............................................................................................. 5

**ELECTIVE COURSES GROUP 2 - TAKE ONE COURSE FROM THE FOLLOWING**

ANTHR 102 [NP] Cultural Anthropology ....................................................................... 3
HUMAN 101 [NP] Introduction to the Humanities ............................................................. 3
HUMAN 110 [NP] East Meets West .................................................................................. 3
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) 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)
IIS 18—COMPUTER ACCESS PROJECTS  
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  
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  
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.

**Industrial Electronics Program**

The Electronics Technology Program prepares students to enter industry as Electronics Technicians or to transfer to a four-year university program. An Industrial Electronics study option and a Computer Electronics study option are available. Students receive theoretical and laboratory instruction in electrical/electronic principles, analog and digital devices, electrical/electronic systems, computer hardware, industrial equipment and control systems. Consult with an Electronics Advisor for selection of courses and options. Classes in Electronics Technology are offered in theoretical and manipulative skills leading to the associate degree. Students may also select a program for transfer to a state university.

**A.S. Degree: Industrial Electronics**

The Electronics Technology Program prepares students to enter industry as Electronics Technicians or to transfer to a four-year university program. An Industrial Electronics study option and a Computer Electronics study option are available. Students receive theoretical and laboratory instruction in electrical/electronic principles, analog and digital devices, electrical/electronic systems, computer hardware, industrial equipment and control systems. Consult with an Electronics Advisor for selection of courses and options. Classes in Electronics Technology are offered in theoretical and manipulative skills leading to the associate degree. Students may also select a program for transfer to a state university.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Work successfully in the power utility, building trades, and/or manufacturing industry.
2. Demonstrate compliance with current engineering and electrical safety and environmental standards.
3. Perform basic troubleshooting and electrical-oriented repairs and installations in accordance with industry standards.

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

**REQUIRED COURSES - COMPLETE 26.5 UNITS**

- ELTEC 221 [3] Instrumentation Devices and Systems .....................................................3
- ELTEC 232 [2] Industrial Electrical Components & Control Devices .............................3
- ELTEC 233 [1] Motors, Controls and Controllers .........................................................3
- ELTEC 235 [1] Troubleshooting 1
- INTEC 202 [NP] Fundamentals of Industrial Technology ..............................................2

**TOTAL UNITS IN A.S. MAJOR** ............................................................... 30.5

**ELECTIVE COURSES - COMPLETE 4 UNITS**

- ELTEC 215 [2,3,4] Introduction to Microprocessors & Digital Systems .........................4
- INTEC 202 [NP] Fundamentals of Industrial Technology ..............................................2

**CERTIFICATE OF ACHIEVEMENT: INDUSTRIAL ELECTRONICS**

The Electronics Technology Program prepares students to enter industry as Electronics Technicians or to transfer to a four-year university program. An Industrial Electronics study option and a Computer Electronics study option are available. Students receive theoretical and laboratory instruction in electrical/electronic principles, analog and digital devices, electrical/electronic systems, computer hardware, industrial equipment and control systems. Consult with an Electronics Advisor for selection of courses and options. Classes in Electronics Technology are offered in theoretical and manipulative skills leading to the associate degree. Students may also select a program for transfer to a state university.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Work successfully in the power utility, building trades, and/or manufacturing industry.
2. Demonstrate compliance with current engineering and electrical safety and environmental standards.
3. Perform basic troubleshooting and electrical-oriented repairs and installations in accordance with industry standards.

To earn a Certificate of Achievement, the student must complete all required courses with a C or better, and complete the electives as indicated.
REQUIRED COMPETENCIES

MATH 70 Elementary Algebra ........................................ 5 OR Qualification for MATH 90 through Assessment

REQUIRED COURSES - COMPLETE 26.5 UNITS

ELTEC 205 [1] Electronics Fabrication and Assembly Techniques ........................................ 3
ELTEC 208 [1] The World of Electricity and Electronics ..................................................... 3
ELTEC 221 [3] Instrumentation Devices and Systems .................................................... 3
ELTEC 222 [2] Industrial Electrical Components & Control Devices .................................. 3
ELTEC 229 [4] Commercial and Industrial Wiring ......................................................... 3.5
ELTEC 232 [2] Introduction to Programmable Logic Controllers ..................................... 2
ELTEC 265 [1] Troubleshooting Techniques ...................................................................... 1

ELECTIVE COURSES - COMPLETE 9 UNITS

ELTEC 214 [2,3,4] Microprocessor Programming and Interfacing ..................................... 4
INTEC 202 [NP] Fundamentals of Industrial Technology .................................................. 2
CMPET 206 [2,3,4] Personal Computer Assembling, Upgrading, and Repairing ........................................ 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .................. 35.5

Interdisciplinary Studies Courses (INDIS)

The Interdisciplinary Studies Program emphasizes critical thinking, communication skills, and independent work. Students are accepted into the program not solely on the basis of past achievement but, most importantly, on their willingness to become members of an intellectually stimulating, interactive learning community.

INDIS 100—INTRODUCTION TO HONORS SCHOLARSHIP 3 UNITS

54 Lecture Hours

Enrollment limited to those who have been admitted to the Honors program.

Interpersonal communication theory and its practical application. Forms of philosophical inquiry that are applicable to the humanities, social sciences, arts, and physical sciences as well as their ethical and political applications. Library and information sources, including development of research strategies, and the retrieval, evaluation, and use of information. Lecture. (A-F only) Transfer: (CSU)

Italian Courses (ITAL)

ITAL 101—ITALIAN 1 5 UNITS

90 Lecture Hours

Fundamentals of spoken and written Italian. Introduction to Italian cultures. Equivalent to the satisfactory completion of two years of high school Italian. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

International Business

PROGRAM

CERTIFICATE OF ACHIEVEMENT: INTERNATIONAL BUSINESS

The International Business Certificate of Achievement is designed for students seeking an entrepreneurial or organizational career in global commerce. It may be obtained as an individual certificate or incorporated into other appropriate majors. Courses are designed to provide an essential understanding of both domestic and international business practices. Economic and cultural and ethical considerations are addressed in relation to business of all sizes and types.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Describe economic, cultural, and ethical differences in conducting business.
2. Gain employment in an organization or pursue entrepreneurial aspirations in global commerce.
3. Explain domestic and international business practices.

PROGRAM REQUIREMENTS

To earn a Certificate of Achievement in International Business, the student must complete the coursework as indicated below. Each course must be completed with a grade of C or better.

REQUIRED COURSES - COMPLETE 17 UNITS

BUSAD 201 [1] Financial Accounting ..................................................... 4
BUSAD 208 [1] Introduction to International Business ........................................ 3
BUSAD 209 [2] Import/Export Fundamentals ..................................................... 3
BUSAD 218 [2] Business Law .......................................................... 4
BUSAD 240 [1] Principles of Management ..................................................... 3 OR
BUSAD 248 [1] Introduction to Business ..................................................... 3 OR

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .................. 17
Kinesiology

PROGRAM

A.A.-T DEGREE: KINESIOLOGY

The Associate in Arts in Kinesiology for Transfer degree is intended for students who plan to complete a bachelor's degree in Kinesiology or related subjects (Physical Education, Sport Science, Exercise Physiology, etc.) at a CSU campus. This degree focuses on practical application of the science-based study of movement. Students who complete the degree will be able to demonstrate an understanding of how the body systems and structures work together to allow movement to occur.

Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU that does not accept this degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Consider how the body systems and structures work together to allow movement to occur.
2. Relate basic motor skills and patterns to concepts, theories, and methods common to Kinesiology.
3. Assess measurements and types of movement to evaluate individual performance.
4. Demonstrate preparedness to successfully continue studies in Kinesiology or a related subject at an upper-division level.

The following is required for the Associate in Arts in Kinesiology for Transfer degree:
1. Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
   A. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements.
   B. A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
2. Obtainment of a minimum grade point average of 2.0.

ADTs also require that students must earn a C or better in all courses required for the major or area of emphasis. A “P” (Pass) grade is not an acceptable grade for courses in the major.

REQUIRED CORE - COMPLETE 14 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 124 [NP] Intro to Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>ANAT 125 [NP] Human Anatomy</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 101 [NP] Introduction to Physiology</td>
<td>5</td>
</tr>
</tbody>
</table>

MOVEMENT BASED COURSES - (Minimum 3) Select a maximum of one (1) course from any three (3) of the following areas for a minimum of three (3) units.

AQUATICS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEC 108 [NP] Deep Water Aerobics</td>
<td>1</td>
</tr>
<tr>
<td>PEC 168 [NP] Beginning Swimming</td>
<td>1</td>
</tr>
<tr>
<td>PEC 169 [NP] Intermediate Swimming</td>
<td>1</td>
</tr>
<tr>
<td>PEC 170 [NP] Advanced Swimming</td>
<td>1</td>
</tr>
<tr>
<td>PEC 171 [NP] Swim for Fitness</td>
<td>1</td>
</tr>
</tbody>
</table>

COMBATIVES

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEC 164 [NP] Self Defense</td>
<td>1</td>
</tr>
</tbody>
</table>

FITNESS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEC 128 [NP] Aerobics</td>
<td>1</td>
</tr>
<tr>
<td>PEC 140 [NP] Exercise for Fitness</td>
<td>1</td>
</tr>
<tr>
<td>PEC 187 [NP] Pilates for Fitness</td>
<td>1</td>
</tr>
<tr>
<td>PEC 195 [NP] Weight Training</td>
<td>1</td>
</tr>
</tbody>
</table>

INDIVIDUAL SPORTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEC 111 [NP] Beginning Racquetball</td>
<td>1</td>
</tr>
<tr>
<td>PEC 112 [NP] Intermediate Racquetball</td>
<td>1</td>
</tr>
<tr>
<td>PEC 143 [NP] Beginning Golf</td>
<td>1</td>
</tr>
<tr>
<td>PEC 175 [NP] Beginning Tennis</td>
<td>1</td>
</tr>
<tr>
<td>PEC 176 [NP] Intermediate Tennis</td>
<td>1</td>
</tr>
<tr>
<td>PEC 177 [NP] Advanced Tennis</td>
<td>1</td>
</tr>
</tbody>
</table>

TEAM SPORTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEC 183 [NP] Volleyball</td>
<td>1</td>
</tr>
<tr>
<td>PEC 184 [NP] Power Volleyball</td>
<td>1</td>
</tr>
<tr>
<td>PEC 186 [NP] Intermediate Volleyball</td>
<td>1</td>
</tr>
</tbody>
</table>

LIST A: (SELECT TWO) 6-10 UNITS:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 134 [NP] Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>BIO 116 [NP] Biology: A Human Perspective</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 143 [NP] Introduction to College Chemistry</td>
<td>5 OR</td>
</tr>
<tr>
<td>CHEM 101 [NP] General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>HE 101 [NP] Emergency Medical Response; CPR Pro/Healthcare Provider</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS IN THE A.A.-T MAJOR: 23-26

TOTAL UNITS THAT MAY BE DOUBLE-COUNTED: 9

GENERAL EDUCATION (CSU-GE OR IGETC PATTERN UNITS): 37-39

ELECTIVE (CSU TRANSFERABLE UNITS): 4-7

TOTAL UNITS REQUIRED FOR A.A.-T DEGREE MAXIMUM: 60

*Note: Double counting courses in GE and the major is permissible. Guidance and Activities requirements are not required for the Associate in Arts in Kinesiology for Transfer degree.

Languages Studies

PROGRAM

A.A. DEGREE: UNIVERSITY PREPARATION, EMPHASIS IN LANGUAGE STUDIES

Students who complete the AA in University Preparation: Emphasis in Language Studies will enhance their communication abilities, cultural awareness, and critical thinking skills in English as well as one or two other languages.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Converse in at least two languages.
2. Communicate in writing in at least two languages.
3. Read critically, interpret analytically, and write coherently in at least two languages.
4. Understand and demonstrate appreciation of cultural differences.
**EMPHASIS REQUIREMENTS**

To earn an Associate Degree with this emphasis, the student must complete the requirements detailed in the University Preparation Pathway (p. 97) which include completion of the requirements below. See advisor for selection of courses.

**REQUIRED COURSES - COMPLETE 17 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 130</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 173</td>
<td>Survey of Latin American Literature</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 112</td>
<td>Introduction to Chicano/a Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 176</td>
<td>Introduction to Mexican Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 175</td>
<td>Women in Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 132</td>
<td>Introduction to World Literature (1500 to Present)</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 110</td>
<td>Spanish for Spanish Speakers 2</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 109</td>
<td>Spanish for Spanish Speakers 1</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 104</td>
<td>Spanish 4</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 102</td>
<td>Spanish 2</td>
<td>5</td>
</tr>
<tr>
<td>SIGN 127</td>
<td>Advanced Communication with the Deaf</td>
<td>3</td>
</tr>
<tr>
<td>SIGN 126</td>
<td>Intermediate Communication with the Deaf</td>
<td>3</td>
</tr>
<tr>
<td>SIGN 125</td>
<td>Beginning Communication with the Deaf</td>
<td>3</td>
</tr>
<tr>
<td>ITAL 101</td>
<td>Italian 1</td>
<td>5</td>
</tr>
<tr>
<td>GERM 102</td>
<td>German 2</td>
<td>5</td>
</tr>
<tr>
<td>GERM 101</td>
<td>German 1</td>
<td>5</td>
</tr>
<tr>
<td>FREN 101</td>
<td>French 1</td>
<td>5</td>
</tr>
<tr>
<td>FREN 102</td>
<td>French 2</td>
<td>5</td>
</tr>
<tr>
<td>FREN 103</td>
<td>French 3</td>
<td>5</td>
</tr>
<tr>
<td>FREN 104</td>
<td>French 4</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 103</td>
<td>Advanced Composition and Critical Thinking</td>
<td>3</td>
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</tbody>
</table>

**COMPLETE 3 UNITS:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 103</td>
<td>Advanced Composition and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 131</td>
<td>Introduction To World Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 132</td>
<td>Introduction to World Literature (1500 to Present)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 175</td>
<td>Women in Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 176</td>
<td>Introduction to Mexican Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 179</td>
<td>Intro to Native American Lit, Mythology, and Oral Tradition</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 112</td>
<td>Introduction to Chicano/a Literature</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 173</td>
<td>Survey of Latin American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ART 102</td>
<td>Introduction to Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 202</td>
<td>Introduction to Computer Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS IN EMPHASIS** ........................................................................... 20

**ABOUT THIS EMPHASIS**

This emphasis is especially designed for students who plan to transfer into California State University, Stanislaus' Liberal Studies major or into their Blended Teacher Preparation Program. It is designed for students interested in teaching in public and private elementary schools. The program provides a broad overview of the fields of natural science, social sciences, humanities, composition, mathematics, and critical thinking in order to prepare the future teacher for the standards-based curriculum required in public schools. Further education at the university level will be required to fulfill all requirements for a teaching credential authorizing service in California public schools.

*Note to students: If you are interested in transferring to a four-year college or university other than CSU Stanislaus to pursue a bachelor's degree in this major, it is critical that you meet with a Modesto Junior College counselor and/or refer to the ASSIST website (www.assist.org) to select and plan the courses for your major. Schools vary widely in terms of the required preparation for this major. The courses that MJC requires for this Area of Emphasis may be different from the preparation requirements needed for the Bachelor's degree at a different university.*

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate competence in the fields of study central to the California state standards for the sciences, mathematics, visual and performing arts, the social sciences, and language and literature.

2. Define and explain the fundamental concepts of educational pedagogy including motivational theories, learning styles, and curriculum development through reflections on their coursework and classroom observations.

**1. 60 UNITS - COMPLETE 60 UNITS NUMBERED 100-299**

**2. GPA - EARN AN OVERALL GPA OF 2.0 OR HIGHER BASED ON ALL COURSEWORK ATTEMPTED IN COLLEGE COURSES NUMBERED 50-399**

**3. GUIDANCE REQUIREMENT - COMPLETE ONE OF THE FOLLOWING COURSES TO FULFILL THE GUIDANCE REQUIREMENT FOR ASSOCIATE DEGREE:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUIDE 109</td>
<td>International Student/New American Focus</td>
<td>1</td>
</tr>
<tr>
<td>GUIDE 110</td>
<td>Educational Planning</td>
<td>0.5</td>
</tr>
<tr>
<td>GUIDE 111</td>
<td>Career Awareness</td>
<td>1</td>
</tr>
<tr>
<td>GUIDE 112</td>
<td>Job Hunting Skills</td>
<td>0.5</td>
</tr>
<tr>
<td>GUIDE 116</td>
<td>Orientation for Re-Entry Adults</td>
<td>2</td>
</tr>
<tr>
<td>GUIDE 120</td>
<td>Success Strategies for Transfer Students</td>
<td>3</td>
</tr>
</tbody>
</table>

**4. ACTIVITIES REQUIREMENT - FULFILL THE ACTIVITIES REQUIREMENT FOR ASSOCIATE DEGREE.**

**COMPLETE ONE OF THE FOLLOWING COURSES**

(Double-counts with Area C.1 below)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 102</td>
<td>Introduction to Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 202</td>
<td>Introduction to Computer Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

**5. GENERAL EDUCATION REQUIREMENT - FULFILL THE GENERAL EDUCATION REQUIREMENT FOR ASSOCIATE DEGREE BY COMPLETING THE CSU-GE TRANSFER PATTERN AS SPECIFIED BELOW WITH A C OR BETTER IN EACH COURSE.**

**CSU-GE: AREA A COMMUNICATION IN THE ENGLISH LANGUAGE AND CRITICAL THINKING**

**AREA A.1 – COMPLETE ONE OF THE FOLLOWING COURSES:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 100</td>
<td>Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>COMM 102</td>
<td>Introduction to Human Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**AREA A.2 – COMPLETE THE FOLLOWING COURSE:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition and Reading</td>
<td>3</td>
</tr>
</tbody>
</table>
LIBERAL STUDIES / LIBRARY INFORMATION TECHNOLOGY

AREA A.3 – COMPLETE ONE OF THE FOLLOWING COURSES:
- CSCI 203 (NP) Symbolic Logic .................................................................3
- ENGL 103 (NP) Advanced Composition and Critical Thinking ..................3
- PHILO 103 (NP) Symbolic Logic .................................................................3
- PHILO 105 (NP) Reasoning .........................................................................3
- PHILO 107 (NP) Philosophy of Science .....................................................3
- COMM 104 (NP) Argumentation ...............................................................3
- COMM 107 (NP) Introduction to Debate ................................................... 3

LIBRARY & INFORMATION TECHNOLOGY

CSU-GE: AREA D

PHYSICAL UNIVERSE, ITS LIFE FORMS & MATHEMATICAL CONCEPTS

AREA B.1 – COMPLETE THE FOLLOWING COURSE:
- EASCI 161 (NP) Earth Science .................................................................4
  (Double-counts for Area of Emphasis below)

AREA B.2 – COMPLETE THE FOLLOWING COURSE:
- BIO 111 (NP) General Biology ...............................................................4
  (Double-counts for Area of Emphasis below)

AREA B.3 – (FULFILLED THROUGH SATISFACTORY COMPLETION OF AREA S B.1 AND B.2)

AREA B.4 – COMPLETE THE FOLLOWING COURSE:
- MATH 105 (NP) Structure of Mathematics .............................................4

CSU-GE: AREA C

ARTS, LITERATURE, PHILOSOPHY, AND FOREIGN LANGUAGE

AREA C.1 – MET WITH FULFILLMENT OF MJC: ACTIVITIES REQUIREMENT ABOVE
- ENGL 169 (NP) Children's Literature (preferred by CSU Stanislaus) ..........3
- ENGL 168 (NP) Adolescent Literature ......................................................3

AREA C.2 – COMPLETE ONE OF THE FOLLOWING COURSES:
- HUMAN 101 (NP) Introduction to the Humanities ......................................3
- HUMAN 105 (NP) Early Humanistic Traditions ..........................................3
- HUMAN 106 (NP) Humanities in the Modern World ..................................3
- HUMAN 110 (NP) East Meets West ............................................................3
- MUSG 101 (NP) Music Appreciation (preferred by CSU Stanislaus) ..........3
- MUSG 121 (NP) History of Western Music 1 .............................................3
- MUSG 122 (NP) History Western Music 2 ................................................3
- MUSG 111 (NP) Introduction to American Popular Music .......................3
- MUSG 102 (NP) Introduction to World Music ...........................................3
- PHILO 101 (NP) Philosophy ......................................................................3
- PHILO 111 (NP) Ethics: Theory and Application .......................................3
- PHILO 115 (NP) Religion: A Philosophical and Comparative Inquiry ..........3
- PHILO 121 (NP) History of Philosophy: Modern ......................................3
- PHILO 123 (NP) 20th Century Philosophy ...............................................3
- PHILO 140 (NP) Philosophy and Film .....................................................3

CSU-GE: AREA D

SOCIAL, POLITICAL, AND ECONOMIC INSTITUTIONS AND BEHAVIOR

AREA D – COMPLETE THREE COURSES, ONE FROM EACH AREA:
CSU-GE AREA D.1 – COMPLETE THE FOLLOWING COURSE
- HIST 101 (NP) History of the United States to 1877 ..............................3

CSU-GE AREA D.2 – COMPLETE ONE COURSE
- HIST 102 (NP) History of the U.S. Since 1865 .......................................3

Library and Information Technology Courses (LIBR)

Library and 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

Library and Information Technology Courses (LIBR)

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 30.

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)
Machine Tool Technology

The Machine Tool Technology program is designed to provide training in the operation of traditional manual as well as computer operated machine tools used to produce the mechanical components used in all industrial applications. Students will receive instruction the use of lathes, milling machines, precision grinders as well as the theory and practice of precision dimensional measurement.

A.S. DEGREE: MACHINE TOOL TECHNOLOGY

The Machine Tool Technology program is designed to provide training in the operation of traditional manual as well as computer operated machine tools used to produce the mechanical components used in all industrial applications. Students will receive instruction the use of lathes, milling machines, precision grinders as well as the theory and practice of precision dimensional measurement.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate compliance with current machine shop safety and environmental regulations.

2. Perform mill, lathe, drill press, precision grinding, measurement, and basic CNC operations in accordance with industry recognized and accepted practices.

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the 27 Required units, 3 elective units. The classes within this series is intended to address the needs of those who wish to obtain an AS degree in Machine Tool Technology or are interested in advancing the skills developed while obtaining the Machine Tool Technology 1 certificate.

REQUIRED COURSES - COMPLETE 27 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 211E</td>
<td>1</td>
<td>Machine Tool Technology 1</td>
</tr>
<tr>
<td>MACH 212E</td>
<td>2</td>
<td>Machine Tool Technology 2</td>
</tr>
<tr>
<td>MACH 213</td>
<td>3</td>
<td>Machine Tool Technology 3</td>
</tr>
<tr>
<td>WELD 200</td>
<td>1</td>
<td>Arc &amp; Gas Welding</td>
</tr>
<tr>
<td>MACH 219</td>
<td>2</td>
<td>Introduction to CNC Mill Programming</td>
</tr>
<tr>
<td>MACH 220</td>
<td>3</td>
<td>CNC Machine Tool Programming</td>
</tr>
<tr>
<td>MACH 222</td>
<td>2</td>
<td>CNC Machine Operations</td>
</tr>
<tr>
<td>MACH 357</td>
<td>1</td>
<td>Machine Trades Print Reading</td>
</tr>
</tbody>
</table>

COMPLETE 2 UNITS FROM THE FOLLOWING:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 395ABC</td>
<td>NP</td>
<td>Advanced Machine Tool Technology Lab</td>
</tr>
<tr>
<td>MACH 218</td>
<td>3</td>
<td>Introduction to CNC Lathe Programming</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES - COMPLETE 3 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 204</td>
<td>2</td>
<td>Gas Metal Arc Welding (G.M.A.W) &amp; Flux Core Arc Welding (F.C.A.W)</td>
</tr>
<tr>
<td>WELD 206</td>
<td>2</td>
<td>Gas Tungsten Arc Welding (G.T.A.W)</td>
</tr>
</tbody>
</table>

TOTAL UNITS IN A.S. MAJOR 30

CERTIFICATE OF ACHIEVEMENT: MACHINE TOOL TECHNOLOGY 1

The Machine Tool Technology program is designed to provide training in the operation of traditional manual as well as computer operated machine tools used to produce the mechanical components used in all industrial applications. Students will receive instruction the use of lathes, milling machines, precision grinders as well as the theory and practice of precision dimensional measurement.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate compliance with current machine shop safety and environmental regulations.

2. Perform mill, lathe, drill press, precision grinding, measurement, and basic CNC operations in accordance with industry recognized and accepted practices.

To earn a Certificate of Achievement Award, student must complete the 15 - 17 required units. Each course must be completed with a C or better.

REQUIRED COURSES – COMPLETE 15 - 17 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 211E</td>
<td>1</td>
<td>Machine Tool Technology 1</td>
</tr>
<tr>
<td>MACH 212E</td>
<td>2</td>
<td>Machine Tool Technology 2</td>
</tr>
<tr>
<td>MACH 213</td>
<td>3 or 4</td>
<td>Machine Tool Technology 3</td>
</tr>
<tr>
<td>MACH 357</td>
<td>1</td>
<td>Machine Trades Print Reading</td>
</tr>
</tbody>
</table>

TOTAL REQUIRED UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ...15-17

*Pending state Chancellor's Office approval.

CERTIFICATE OF ACHIEVEMENT: MACHINE TOOL TECHNOLOGY 2

The Machine Tool Technology program is designed to provide training in the operation of traditional manual as well as computer operated machine tools used to produce the mechanical components used in all industrial applications. Students will receive instruction the use of lathes, milling machines, precision grinders as well as the theory and practice of precision dimensional measurement.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate compliance with current machine shop safety and environmental regulations.

2. Perform operations using manual mills, lathes, drill press, precision grinders, conduct basic precision measurement, and program and operate basic CNC lathes and milling machines in accordance with industry recognized and accepted practices.

PROGRAM REQUIREMENTS

To earn a Certificate of Achievement, student must complete the 27 required units and 3 units from the choice of elective courses.

REQUIRED COMPETENCIES FOR CERTIFICATE
The Machine Tool Technology program is designed to provide training in the operation of traditional manual as well as computer operated machine tools used to produce the mechanical components used in all industrial applications. Students will receive instruction the use of lathes, milling machines, precision grinders as well as the theory and practice of precision dimensional measurement.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate compliance with current CNC machining safety and environmental regulations.
2. Perform CNC machine shop operations in accordance with industry recognized and accepted practices.

To earn a Skills Recognition Award, student must complete the 6 required units. This series of courses is intended to give the student a sufficient skill base to be able to operate and to edit programs for basic CNC lathes and CNC milling machines that are commonly used in manufacturing applications.

REQUIRED COURSES

- MACH 211 [1] Introduction to CNC Mill Programming .........................................................2
- MACH 222 [1] CNC Machine Operations .........................................................................2

TOTAL UNITS FOR SKILLS RECOGNITION AWARD .................................................. 6

SKILLS RECOGNITION: CNC PROGRAMMER

The Machine Tool Technology program provides training toward the acquisition of proficiency in the use of metal removal and metal forming machine tools. Training in calculations of cutting speeds and feeds, use of measuring tools, study of elementary metallurgy, and making adjustments are also emphasized. Special focus is given to care of equipment, orderliness, accuracy, speed, judgment, confidence and safe working habits.

MACH 211 D,E — MACHINE TOOL TECHNOLOGY 1

4 - 5 UNITS

D= 54 Lecture Hours, 54 Lab Hours, E= 54 Lecture Hours, 108 Lab Hours

Formerly listed as: MACH 211D: Machine Tool Technology 1

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 20 and satisfactorily complete ESL 45 . This class is intended to address the situation of the traditional student with little or no experience in the manufacturing areas of the economy. The study and application of basic measuring tools, (steel rulers, vernier calipers & 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

SKILLS RECOGNITION: CNC OPERATOR

The Machine Tool Technology program is designed to provide training in the operation of traditional manual as well as computer operated machine tools used to produce the mechanical components used in all industrial applications. Students will receive instruction the use of lathes, milling machines, precision grinders as well as the theory and practice of precision dimensional measurement.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Manually format and produce a word address format code that will operate a vertical machining to center spot, drill, bore, tap, and countersink a combination of ten holes within one hour.
2. Produce word address format code that will operate a vertical machining center to produce a part of moderate complexity within one hour.
3. Manually input and properly format a word address format program that will produce a part on a CNC lathe that will have three turned diameters, at least one chamfered and one radiused edge within one hour.

To earn a Skills Recognition Award, the student must complete the coursework below. Each course must be completed with a C or better.

REQUIRED COURSES — COMPLETE 8 UNITS

- MACH 218 [2] Introduction to CNC Lathe Programming ................................................2
- MACH 219 [1] Introduction to CNC Mill Programming ....................................................2
- MACH 222 [NP] CNC Machine Operations ..................................................................2

ELECTIVE COURSES: COMPLETE 2 UNITS

- MACH 311 [NP] CNC Programming with Macros ..........................................................1
- MACH 312 [NP] 4 Axis Mill Programming and Operation .............................................1
- MACH 315 [NP] 3D Part Programming for CNC .............................................................1

TOTAL UNITS FOR SKILLS RECOGNITION AWARD........................................... 10
required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU)

MACH 212DE—MACHINE TOOL TECHNOLOGY 2  4 - 5 UNITS
Formerly listed as: MACH 212D: Machine Tool Technology 2
D= 54 Lecture Hours, 54 Lab Hours, E= 54 Lecture Hours, 108 Lab Hours,
Prerequisite: Satisfactory completion of MACH 211DE
This class is intended to address the situation of the traditional daytime student
with little or no experience in the manufacturing areas of the economy and has
completed MACH 211. The principles and fundamental use of precision grinders and
advanced applications of the manual engine lathe and milling machine are a primary
focus. Advanced levels of measuring systems, the study of basic metallurgy, and
the techniques of heat treating to enhance the properties of metallic parts are addressed.
Materials fee required. Field trips might be required. (A-F or P/NP) Transfer: (CSU)

MACH 213—MACHINE TOOL TECHNOLOGY 3  4 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as: MACH 213D: Machine Tool Technology 3 - Manufacturing
Prerequisite: Satisfactory completion of MACH 212DE or MACH 302.
Theory and practice in the use of the dividing head, metric system, classes of fit, tool
and cutter grinding, gear cutting, and dovetails. Carbide cutting tools emphasized.
Exploration and study of manufacturing processes found in local industries. Materials
fee required. Field trips might be required. (A-F or P/NP) Transfer: (CSU)

MACH 218—INTRODUCTION TO CNC LATHE PROGRAMMING  2 UNITS
18 Lecture Hours, 54 Lab Hours
Formerly listed as: MFGA 218: Introduction to CNC Lathe Programming
Recommended for Success: Before enrolling in this course, students are strongly
advised to have previous machining experience using manual or CNC lathes.
The use of manual programming techniques to develop tool path codes required
to produce products using two axis CNC turning equipment. Effective cutting speeds,
feeds, and depth of cut for various machining operations. The use of “canned cycles”
with word address programming as well as conversational programming format will
be addressed. Materials fee required. Field trips might be required. (A-F or P/NP)
Transfer: (CSU)

MACH 219—INTRODUCTION TO CNC MILL PROGRAMMING  2 UNITS
18 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly
advised to satisfactorily complete courses or training that have provided them
with experience in the use of manual or CNC milling machines.
The use of manual programming techniques to develop tool path codes required
to produce products using CNC milling equipment. Effective cutting speeds, feeds, and
depth of cut for various machining operations using “canned cycles” with word address
programming as well as conversational programming format will be addressed.
Materials fee required. Field trips might be required. (A-F or P/NP) 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
27 Lecture Hours, 27 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly
advised to satisfactorily complete MACH 211DE or satisfactorily complete MACH
301 or have a working knowledge of the use of manually operated metal
cutting lathes and milling machines and be able to use a micrometer to
measure to within .001 inch.
The setup and operation of computer controlled machine tools with emphasis
upon vertical machining centers and two axis turning centers. Primary controller
operation, machine setup, tooling application, installation and adjustment and basic
codes needed for editing will be addressed. Materials fee required. Field trips might be
required. (A-F or P/NP) 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
Formerly listed as: MFGA 301: Machine Shop 1
Recommended for Success: Before enrolling in this course, students are strongly
advised to Be able to speak, read, and understand English.
This class is intended to address the needs of the working student who has
had some experience in the manufacturing areas of the economy. The study and
application of basic measuring tools, (steel rulers, vernier calipers & micrometers),
layout tools and hand tools are addressed. The theory and practice of the use of
drilling machines, bandsaws, lathes and vertical milling machines are a primary focus.
Materials fee required. Field trips are not required. (A-F or P/NP)

MACH 302—MACHINE SHOP 2  3 UNITS
36 Lecture Hours, 54 Lab Hours
Also offered as: MFGA 302: Machine Shop 2
Formerly listed as: MFGA 302: Machine Shop 2
Prerequisite: Satisfactory completion of MACH 211DE or MACH 301.
This class is intended to address the needs of the working student who has had
some experience in the manufacturing areas of the economy and has completed
MACH 301. The principles and fundamental use of precision grinders and advanced
applications of the manual engine lathe and milling machine are a primary focus.
Advanced levels of measuring systems, the study of basic metallurgy, and the
techniques of heat treating to enhance the properties of metallic parts are addressed.
Materials fee required. Field trips are not required. (A-F or P/NP)
MACH 303—MACHINE SHOP 3 3 UNITS
36 Lecture Hours, 54 Lab Hours
Also offered as: MACH 303: Machine Shop 3
Formerly listed as: MFGA 303: Machine Shop 3
Prerequisite: Satisfactory completion of MACH 212DE or MACH 302.

The theory and practice in the use of the dividing head, gearing systems, tool and cutter grinding, and non-traditional machining systems is addressed. Carbide tooling emphasized. Materials fee required. Field trips are not required. (A-F or P/NP)

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) Lecture.

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.

Maintenance Machinist PROGRAM

CERTIFICATE OF ACHIEVEMENT: MAINTENANCE MACHINIST 2

The Machine Tool Technology program is designed to provide training in the operation of traditional manual as well as computer operated machine tools used to produce the mechanical components used in all industrial applications. Students will receive instruction the use of lathes, milling machines, precision grinders as well as the theory and practice of precision dimensional measurement.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Demonstrate compliance with current machine shop safety and environmental regulations.
2. Perform manual machine shop operations in accordance with industry recognized and accepted practices.

PROGRAM REQUIREMENTS

To earn a Certificate of Achievement, student must complete the following requirements.

REQUIRED COMPETENCIES FOR CERTIFICATE

MATH 20 Pre-Algebra
Eligibility for MATH 70 by MJC assessment process.

REQUIRED COURSES – COMPLETE 16 UNITS

MACH 301 [ 1 ] Machine Shop 1 ................................................................. 3
WELD 200 [ 2 ] Arc & Gas Welding ............................................................. 3
ELTEC 320 [ NP ] Electrical Safety .............................................................. 1
ELTEC 265 [ NP ] Troubleshooting Techniques ............................................. 1
ELTEC 300 [ NP ] Survey of Applied Technologies ....................................... 1
AGM 214 [ NP ] Equipment Service and Safety .......................................... 1

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .................. 21
SKILLS RECOGNITION: MAINTENANCE MACHINIST 1

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate compliance with current machine shop safety and environmental regulations.
2. Perform manual machine shop operations in accordance with industry recognized and accepted practices.

To earn a Skills Recognition Award, student must complete the 9 units. This series of courses is intended to meet the needs of those students interested in pursuing career opportunities in the machining and plant engineering and maintenance fields. The Maintenance Machinist series of classes are similar in content to the Machine Tool Tech classes offered during the day.

REQUIRED COURSES – COMPLETE 9 UNITS

MACH 301 [1] Machine Shop 1 .............................................................. 3
WELD 200 [NP] Arc & Gas Welding .................................................. 3

TOTAL UNITS FOR SKILLS RECOGNITION AWARD ......................... 9

Marketing PROGRAM

The Marketing program is designed for those students interested in activities relating to the presentation, purchase, and distribution of goods and services in profit and nonprofit organizations. Students will learn the central role that marketing plays in organizations of every size and type, public and private.

A.S. DEGREE: MARKETING

The Marketing program is designed for those students interested in activities relating to the presentation, purchase, and distribution of goods and services in profit and nonprofit organizations. Students will learn the central role that marketing plays in organizations of every size and type, public and private.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Recognize and analyze ethical issues as they apply to the marketing environment.
2. Apply communication strategies for various audiences and contexts.
3. Apply fundamental sales and marketing techniques.

To earn an Associate in Science Degree, the student must complete the MJC Associate Degree Requirements in addition to the following coursework. Degrees are awarded to students in recognition of completion of specified requirements, which indicate proficiency. All Required Courses must be passed with a “C” grade or better. Interested students should consult Business Administration faculty advisors.

Mathematics PROGRAM

A.S.-T DEGREE: MATHEMATICS

The Associate in Science in Mathematics for Transfer degree includes curriculum which focuses on the mastery of integration and differentiation and using these techniques to model real-world applications. The Associate in Science in Mathematics for Transfer degree is intended for students who plan to complete a bachelor’s degree in Mathematics or a related field of study offered at various campuses in the California State University system. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU campus that accepts this degree will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. The Associate in Science in Mathematics for Transfer degree also offers the appropriate preparation for students who plan to complete a bachelor’s degree in Mathematics at various campuses in the University of California system. However, students completing this degree are not guaranteed admission to the UC system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.
The following is required for the AS Degree in Mathematics for Transfer:
1. Minimum of 60 CSU-transferable semester units.
2. Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. (While a minimum of 2.0 is required for admission, some majors may require a higher GPA.)
3. Completion of 25 semester units in the major. All courses in the major must be completed with a grade of C or better.
4. Certified completion of the California State University General Education-Breadth pattern (CSU-GE Breadth); OR, the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

PROGRAM LEARNING OUTCOMES
Upon satisfactory completion of this award, the student should be prepared to:
1. Successfully complete upper division coursework in mathematics.
2. Master the techniques of integration and differentiation.
3. Use these techniques to model real-world applications.

To earn an Associate in Science for Transfer degree in this major, the student must complete the requirements detailed in the Transfer Model Curriculum pathway. All courses must be completed with a C or better.

REQUIRED COURSES: COMPLETE 25 UNITS:
- MATH 171 (NP) Calculus: First Course ......................................................... 5
- MATH 172 (NP) Calculus: Second Course ....................................................... 5
- MATH 173 (NP) Calculus: Third Course ........................................................... 5
- MATH 174 (NP) Introduction to Linear Algebra and Differential Equations .......... 5
- PHYS 101 (NP) General Physics: Mechanics .................................................. 5

TOTAL UNITS IN A.S.-T MAJOR .................................................................... 25

COMPLETION OF CSU BREADTH OR IGETC PATTERN (CSU) ....................... 37-39
COMPLETION OF IGETC PATTERN (UC) WITHOUT A FOREIGN LANGUAGE COURSE, IF NEEDED .......................................................... 34-36
TRANSFERABLE ELECTIVES (AS NEEDED TO REACH 60 UNITS)

TOTAL UNITS REQUIRED FOR A.S.-T DEGREE........................................ 60

* Note: Double counting courses in GE and the major is permissible. MJC Guidance and Activities Requirement is not required for the Associate in Science in Mathematics for Transfer Degree.

MATH NON-TRANSFERABLE COURSES

MATH 10—INTRODUCTION TO MATHEMATICS ........................................ 4 UNITS

72 Lecture Hours
Recommended for success: Qualification by MJC assessment process.
Module 1: A review of the four arithmetic operations as they apply to whole numbers, common fractions, and decimal fractions. Module 2: A variety of selected applications from arithmetic, pre-algebra, and geometry. Lecture. (A-F or P/NP)
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 .... 0.5 UNITS

27 Lab Hours
Formerly listed as MATH 47—Skills for Success in Elementary Algebra
Designed to provide practice in basic mathematical skills needed for success in non-transfer level math courses. Particularly useful for those who are weak in prerequisite skills or who have struggled in other non-transfer level mathematics courses. NOTE: MATH 47 DOES NOT serve as a prerequisite to any mathematics course. (P/NP Only) Lab.
MATH 49—SKILLS FOR SUCCESS IN TRANSFER LEVEL MATH COURSES 0.5 UNITS
27 Lab Hours
Formerly listed as: MATH 49: Skills for Success in Intermediate Algebra
Practice on mathematical skills needed for success in transfer level mathematics courses. Intended for those who need prerequisite skills or who have struggled in intermediate algebra or precalculus courses. DOES NOT serve as a prerequisite to transferable mathematics courses. (P/NP Only) Lab.

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) General Education: (MJC-GE: D2)

MATH 89—INTERMEDIATE ALGEBRA ESSENTIALS 4 UNITS
72 Lecture Hours
Prerequisite: Satisfactory completion of MATH 70 or qualification by the MJC assessment process.
Equivalent to second year high school algebra. Topics include linear, quadratic, exponential and logarithmic functions and equations; complex numbers; solving systems of equations; conic sections; sequences and series. Field trips are not required. (A-F or P/NP) General Education: (MJC-GE: D2)

MATH 90—INTERMEDIATE ALGEBRA 5 UNITS
90 Lecture Hours
Prerequisite: Satisfactory completion of MATH 70 or MATH 71 and MATH 72 or qualification by the MJC assessment process.
Equivalent to second year high school algebra. Topics include linear, quadratic, exponential and logarithmic functions and equations; complex numbers; solving systems of equations using substitution, matrices and determinants; conic sections; sequences and series. Field trips are not required. (A-F or P/NP) General Education: (MJC-GE: D2)

MATH GENERAL EDUCATION/TRANSFER & LIBERAL STUDIES COURSES

MATH 101—MATHEMATICAL IDEAS AND APPLICATIONS 3 UNITS
54 Lecture Hours
Prerequisite: Satisfactory completion of MATH 89 or qualification by the MJC assessment process or MATH 90 or qualification by the MJC assessment process.
A general education course emphasizing the role of mathematics in civilization, the nature of mathematical thought, and applications of mathematics. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) (CC: MATH 6) General Education: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2)

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) General Education: (MJC-GE: D2)(CSU-GE: B4)

MATH 111—APPLIED COLLEGE ALGEBRA 3 UNITS
54 Lecture Hours
Prerequisite: Satisfactory completion of MATH 89 or qualification by the MJC assessment process or MATH 90 or qualification by the MJC assessment process.
A College Algebra course that presents each topic to answer the question, "What is this used for?" Instruction begins with a real-world problem and develops the mathematical models and methods to solve it. Topics include: polynomial, rational, exponential, and logarithmic functions; theory of equations; systems of equations; matrix algebra; and analytic geometry. Designed specifically for students needing only a one-semester, non-precalculus College Algebra course for transfer to a university. Not open to students who have received credit in Math 121. Will not serve as a prerequisite to Math 122 or Math 171. STUDENTS PREPARING TO TAKE CALCULUS MUST TAKE MATH 121 AND MATH 122. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2)

MATH PRE-CALCULUS COURSES

MATH 121—PRE-CALCULUS 1 5 UNITS
90 Lecture Hours
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process.
A one-semester College Algebra course or, together with Math 122, a two-semester Precalculus course sequence. Emphasis on algebra skills essential for success in calculus. Topics include: review of linear, quadratic, 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)
### MATH STATISTICS AND APPLICATIONS COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Unit Hours</th>
<th>Description</th>
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<tbody>
<tr>
<td>MATH 130 — FINITE MATHEMATICS</td>
<td>3</td>
<td>54 Lecture Hours&lt;br&gt;<strong>Prerequisite:</strong> Satisfactory completion of MATH 89 or qualification by the MJC assessment process or MATH 90 or qualification by the MJC assessment process. Set theory, probability and counting techniques, Markov chains, matrices and linear systems, linear programming (Simplex Method), applications to business and behavioral and social sciences. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) (CC: MATH 12) General Education: (MJC GE: D2) (CSU GE: B4) (IGETC: 2)</td>
</tr>
<tr>
<td>MATH 134 — ELEMENTARY STATISTICS</td>
<td>5</td>
<td>90 Lecture Hours&lt;br&gt;<strong>Prerequisite:</strong> Satisfactory completion of MATH 90 or qualification by the MJC assessment process.&lt;br&gt;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) General Education: (MJC GE: D2) (CSU GE: B4) (IGETC: 2)</td>
</tr>
<tr>
<td>MATH 138 — CALCULUS FOR BUSINESS &amp; SOCIAL SCIENCES</td>
<td>3</td>
<td>54 Lecture Hours&lt;br&gt;Formerly listed as: MATH 138: Calculus for Business &amp; Social Sciences&lt;br&gt;<strong>Prerequisite:</strong> Satisfactory completion of MATH 89 or qualification by the MJC assessment process or MATH 90 or qualification by the MJC assessment process.&lt;br&gt;Concepts of functions and limits; applied calculus emphasizing techniques of differentiation and integration with applications directed primarily to business and the social sciences; partial derivatives. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC GE: D2) (CSU GE: B4) (IGETC: 2)</td>
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### MATH CALCULUS COURSES

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<tr>
<th>Course Code</th>
<th>Unit Hours</th>
<th>Description</th>
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<tbody>
<tr>
<td>MATH 171 — CALCULUS: FIRST COURSE</td>
<td>5</td>
<td>90 Lecture Hours&lt;br&gt;<strong>Prerequisite:</strong> Satisfactory completion of MATH 121 and MATH 122 or qualification by the MJC assessment process.&lt;br&gt;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 (CID-MATH 210) General Education: (MJC GE: D2) (CSU GE: B4) (IGETC: 2A)</td>
</tr>
<tr>
<td>MATH 172 — CALCULUS: SECOND COURSE</td>
<td>5</td>
<td>90 Lecture Hours&lt;br&gt;<strong>Prerequisite:</strong> Satisfactory completion of MATH 171.&lt;br&gt;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) Transfer: (CSU, UC) General Education: (MJC GE: D2) (CSU GE: B4) (IGETC: 2A)</td>
</tr>
<tr>
<td>MATH 173 — CALCULUS: THIRD COURSE</td>
<td>5</td>
<td>90 Lecture Hours&lt;br&gt;<strong>Prerequisite:</strong> Satisfactory completion of MATH 172.</td>
</tr>
</tbody>
</table>
• Transcripts on File in MJC Enrollment Services
All transcripts (high school or equivalent and other colleges) must be on file in MJC Enrollment Services, Student Services Building, 102, (209) 575-6853 prior to the Program application deadline. Enrollment Services will accept hand-carried transcripts that are in a sealed envelope with a school seal.

RECOMMENDED COMPETENCIES
(FOR CERTIFICATE OF ACHIEVEMENT)
Complete English, math and reading assessment requirements by the program application deadline. The following competencies are recommended for success in the Medical Assisting Program.

WRITING COMPETENCY
ENGL 49 [NP] Basic English Skills (C or better) ............................................................... 5 OR Eligibility for ENGL 50 on assessment test

MATH COMPETENCY
MATH 20 [NP] Pre-algebra (C or better) ............................................................... 5 OR Eligibility for Math 70 on assessment test

READING COMPETENCY
READ 184 [NP] Critical Reading (C or better) ............................................................... 3 OR Reading competency (85) on Accuplacer OR completion of a college degree from a regionally accredited college or university.

PROGRAM PREREQUISITES
[None required]

PROGRAM APPLICATION
Applications are available on the Allied Health website www.mjc.edu/alliedhealth

February 1 - April 15
Applications will continue to be accepted until the program is full or August 15.

SELECTION PROCESS FOR THE PROGRAM
In the event there are more qualified applicants than space available in the Program, a weighted lottery system will be employed. An applicant’s name will be entered an extra time for:
• Anatomy and Physiology
  Satisfactory completion of AP 50
• Psychology
  Satisfactory completion of PSYCH 51 OR PSYCH 101
• Communication Studies
  Satisfactory completion of COMM 100 OR COMM 102 OR COMM 130
• Medical Terminology
  Satisfactory completion of MDAST 321

ADDITIONAL REQUIREMENTS
FOR ACCEPTED APPLICANTS ONLY
Accepted applicants will receive information with instructions for completing the health clearance, background check, drug screen, and BLS certification.

HEALTH CLEARANCE
• A medical history and physical examination completed by a physician, physician’s assistant, or nurse practitioner within 3 months prior to program start date. The physical must state that the applicant does not have any health conditions that would create a hazard to self, employees, or patients.
• Documentation of required immunizations.

• A negative PPD skin test must be obtained. If a positive reaction is obtained, or has previously been obtained, a chest x-ray must be taken unless medically contraindicated.

BACKGROUND CHECK
Practicum sites will require students to provide a background check Certificate of Verification before they will be allowed to participate in the practicum portion of the program.

DRUG SCREEN
All students participating in the practicum experience will be required by the practicum sites to pass a drug screen.

BLS CERTIFICATION
The Medical Assisting Program will offer a BLS course for all accepted candidates. Details regarding date, time, location, and cost will be included in the acceptance letter. BLS certification must be from the American Heart Association; for the Healthcare Provider (infant, child and adult); eligible for recertification; and current throughout the program.

SCHOLASTIC REQUIREMENTS
In order to be eligible for the National Certification Examination, all program requirements must be completed with a grade of C or better. If a student receives less than a C in any required course, that course must be repeated with a C or better in order to be eligible to take the AAMA Certification Exam.

POLICY FOR DENIAL OF CERTIFICATION
Beginning with the January 2001 administration of the Certification Examination, felons are no longer eligible for the Certification Examination unless the American Association of Medical Assistants (AAMA) Certifying Board grants a waiver based on one or more of the mitigating circumstances listed in the Disciplinary Standards. Any student considering a career in medical assisting, who has a criminal record, is advised to contact the AAMA for advisement prior to entering the Medical Assisting Program.

American Association of Medical Assistants
20 N. Wacker Drive, Suite 1575
Chicago, IL 60606-2903
(800) 228-2262
www.aama-ntl.org

PROGRAM ADVISORY
* Students are strongly advised to complete the required curriculum listed under Required Courses (Non Medical Assisting) prior to entering the Medical Assisting program. These courses must be completed by the second semester of the program with a grade of C or better in order to complete the Medical Assisting program and be eligible to take the CMA exam

A.S. DEGREE: MEDICAL ASSISTING

PROGRAM LEARNING OUTCOMES
Upon satisfactory completion of this award, the student should be prepared to:

1. Provide competent medical assisting care, in variety of settings, based on the entry-level competencies for the Medical Assistant.
2. Communicate effectively with colleagues, patients/clients, and other members of the health care team.
3. Establish and maintain professional working relationships with men and women from diverse backgrounds.
4. Demonstrate understanding of the legal implications of healthcare and use critical thinking skills to make ethical decisions.
6. Set and achieve professional goals.
7. Make a substantial contribution to the quality of healthcare by representing the medical assisting profession with pride and dedication.

To earn an Associate in Science Degree in Medical Assisting, the student must complete the requirements detailed in the Career Technical Education Pathway*. Consult an advisor for selection of courses.

TOTAL UNITS REQUIRED IN A.S. MAJOR ................................................. 60

* The Health Education requirement has been waived for all Allied Health certificates and degrees.

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**CERTIFICATE OF ACHIEVEMENT: MEDICAL ASSISTING**

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Provide competent medical assisting care, in variety of settings, based on the entry-level competencies for the Medical Assistant.
2. Communicate effectively with colleagues, patients/clients, and other members of the health care team.
3. Establish and maintain professional working relationships with men and women from diverse backgrounds.
4. Demonstrate understanding of the legal implications of healthcare and use critical thinking skills to make ethical decisions.
5. Set and achieve professional goals.
6. Make a substantial contribution to the quality of healthcare by representing the medical assisting profession with pride and dedication.

**REQUIRED COURSES (NON MEDICAL ASSISTING)**

- AP 50 Elementary Human Anatomy and Physiology ............................................... 3
- PSYCH 51 Psychology in Everyday Life ...................................................................... 3 OR PSYCH 101 General Psychology .............................................................. 3
- COMM 100 Fundamentals of Public Speaking .......................................................... 3 OR COMM 102 Introduction to Human Communication ........................................... 3
- COMM 130 Intercultural Communication ................................................................ 3

**REQUIRED COURSES (MEDICAL ASSISTING)**

**[FALL SEMESTER]**

- MDAST 320 Introduction to Medical Assisting .......................................................... 3
- MDAST 321 Medical Terminology ........................................................................... 3
- MDAST 322 Medical Assisting Administrative Procedures .................................. 3.5
- MDAST 323 Medical Assisting Clinical Procedures ................................................ 3

**[SPRING SEMESTER]**

- MDAST 324 Introduction to Diseases and Pharmacology ....................................... 4
- MDAST 325 Laboratory Procedures ...................................................................... 3
- MDAST 326 Medical Assisting Practicum ............................................................... 7

TOTAL UNITS REQUIRED IN CERTIFICATE OF ACHIEVEMENT AWARD ....35.5

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**Medical Assisting Courses (MDAST)**

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

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

Formerly listed as: MDAST - 321: Medical Terminology
Corequisite: Concurrent enrollment in MDAST 320 and MDAST 322.

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.

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

Formerly listed as: MDAST - 322: Medical Assisting Administrative
Corequisite: Concurrent enrollment in MDAST 320 and MDAST 323.

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

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

Formerly listed as: MDAST - 323: Medical Assisting Clinical
Corequisite: Concurrent enrollment in MDAST 320 and MDAST 322.

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

Formerly listed as: MDAST - 324: Intro to Diseases/Pharmacology
Prerequisite: Satisfactory completion of MDAST 320 and MDAST 322 and MDAST 323.
Corequisite: Concurrent enrollment in MDAST 325 and MDAST 326. Medical Terminology related to the human body in health and disease.

Pathogenesis and discussion of representative diseases; signs and symptoms of many major diseases and basic drugs used in treatment. (A-F Only) Lecture/Lab.
MDAST 325—MEDICAL ASSISTING LABORATORY PROCEDURES  3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as: MDAST - 325: Lab Procedures
Prerequisite: Satisfactory completion of MDAST 320 and MDAST 322 and MDAST 323.
Corequisite: Concurrent enrollment in MDAST 324 and MDAST 326.
Introduction to laboratory procedures necessary to aid the physician. Includes patient preparation for diagnostic studies, purposes, techniques, and recording of procedures commonly performed. Field trips may be required. (A-F Only) Lecture/Lab.

MDAST 326—MEDICAL ASSISTING PRACTICUM  7 UNITS
36 Lecture Hours, 270 Lab Hours
Formerly listed as: MDAST - 326: Externship
Prerequisite: Satisfactory completion of MDAST 320 and MDAST 322 and MDAST 323.
Corequisite: Concurrent enrollment in MDAST 324 and MDAST 325.
Practicum portion of the program consists of two 8-week rotations in which students apply knowledge in performing administrative and clinical procedures. Students also receive training in taking the national certification exam and seeking employment. (A-F Only) Lecture/Lab.

Meteorology Courses (METEO)

METEO 161 INTRODUCTION TO METEOROLOGY  4 UNITS
54 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EASCI 161 and satisfactorily complete MATH 70.
Introduction to atmospheric structure, weather monitoring techniques, solar radiation, thermodynamics, air pressure, humidity, cloud formation, wind patterns, planetary circulation patterns, storms and severe weather (including thunderstorms, tornadoes, and hurricanes), and the causes and consequences of climate and climate change. Lab activities emphasize gathering and analysis of meteorological data (both archived and real-time) to understand and predict weather events. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, SC)

Microbiology Courses (MICRO)

MICRO 101—MICROBIOLOGY  4 UNITS
54 Lecture Hours, 54 Lab Hours
Prerequisite: Satisfactory completion of BIO 116 or BIO 101 or BIO 111 and CHEN 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, SC)

Music PROGRAM

The MJC Music Program offers courses for students wishing to earn an associate’s degree in music, general education courses for non-music majors, and courses designed for community members. These include a comprehensive curriculum of music theory and musicianship. Ensemble and production courses include Concert and Symphonic Bands, Day and Evening Jazz Bands, Concert and Chamber Choirs, Masterworks Chorus, Community Orchestra, Guitar Orchestra, opera/musical theatre productions, chamber music performances, and electronic music productions. The program also offers applied studies in piano, organ, harpsichord, guitar, voice, violin/viola, cello/bass, woodwinds, and brass/percussion, as well as survey courses such as Music Appreciation, Introduction to World Music, Introduction to American Popular Music, and History of Western Music.

ABOUT THE DEGREE REQUIREMENTS

MUST 101
Theory Sequence Prerequisite Students with no music theory preparation must complete MUST 101 prior to starting the music theory sequence at MJC. Students with music theory background who wish to bypass MUST 101 must petition using a Prerequisite Challenge Form to gain admission into MUST 121. They must be prepared to take a placement test prior to the 1st day of class consisting of the following topics: musical notation of basic rhythms, all major and minor scales, key signatures, all diatonic intervals, and all triads and seventh chords. For more information please contact a music faculty member.

Applied Music Courses
Applied courses focus on the development of technical skill and insight into musical performance through primarily individualized instruction on a special instrument or voice. See an advisor to select the appropriate applied course. Auditions may be required.

Ensemble Courses
Ensemble courses provide students with experience performing in a group setting such as Choir, Community Orchestra, Concert and Symphonic Band, Guitar Orchestra, as well as other smaller groups. See an advisor to select the appropriate ensemble course for your instrument/voice. Auditions may be required.

Keyboard Proficiency Courses
Music majors must take keyboard (piano) courses to prepare for the piano proficiency requirement within most bachelor of music degrees. Students whose primary instrument is piano may use applied piano coursework to satisfy this requirement.

General Education Courses
All candidates for an associate degree at MJC are required to satisfy general education requirements. Music majors should see a music advisor to select appropriate GE courses. Prerequisites may be required. 39 units for CSU-GE, 37-39 units for IGETC. Students who plan to pursue a bachelors degree after transferring are advised to follow CSU-GE or IGETC patterns.

Other Degree Requirements
Students who follow the Associate Degree for Transfer Pathway (CSU Transfer Model Curriculum) are exempt from the Guidance and Activity requirement for degree. Students who follow the Career/Technical Education Pathway or the University Preparation Program are not exempt from this requirement.
Students who satisfy degree requirements for the Associate in Arts Degree in Music will be prepared to pursue a bachelor of arts degree in music degrees at California State University Music departments as well as other 4-year academic institutions. The bachelor of arts degree in music can lead to careers in fields such as music performance, music education, music composition, and music therapy. Students who follow the University Preparation Pathway and complete the AA: Music requirements will also be eligible for the AA-T in Music degree.

Eligible for AA in Music, AA-T in Music (when following requirements for the University Preparation Pathway) and transfer-prepared for bachelor of music programs at 4-year academic institutions.
ABOUT THIS PROGRAM

The MJC Music Program offers courses for students wishing to earn an associate's degree in music. Our comprehensive curriculum includes the following core classes for music majors: music theory, musicianship classes, ensemble classes that include Concert and Symphonic Bands, Day and Evening Jazz Bands, Concert and Chamber Choirs, Masterworks Chorus, Community Orchestra, Guitar Orchestra, Opera and Musical Theatre productions, as well as Chamber Music performances. The program also offers applied studies in piano, organ, harpsichord, guitar, voice, violin/viola, cello/bass, woodwinds, and brass/percussion. Lastly, our program also offers survey courses such as Music Appreciation, Introduction to World Music, Introduction to American Popular Music, and History of Western Music that can be taken as electives by both music and non-music majors.

The Associate in Arts in Music for Transfer degree is intended for students who plan to complete a bachelor's degree in Music Studies at a CSU campus. Students completing the transfer degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU campus that accepts this degree will be required to complete no more than 60 units after transferring to earn a bachelor's degree. The transfer degree may not be the best option for students intending to transfer to a particular CSU campus or a university that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate musical literacy by decoding music notation through their instrument and/or voice.
2. Demonstrate the ability to use basic musical notation.
3. Perform and stylistically interpret music on their applied instrument or voice, in an ensemble and/or in a solo setting.
4. Demonstrate an awareness of the scope, variety, and structure of works in the canon of traditional western art music.

The following is required for the AA Degree in MUSIC for Transfer:

1. A minimum of 18 semester units or 27 quarter units in the major with a grade of C or better while maintaining a minimum grade point average (GPA) of at least 2.0 in all CSU transferable coursework.
2. Completion of 60 semester or 90 quarter units transferable units using the CSU-GE Breadth or the IGETC pattern.
3. Exactly 60 semester units or 90 quarter units are required for the degree.

REQUIRED CORE: (16 UNITS)

MUST 121 [NP] Music Theory 1 ................................................................. 3
MUST 122 [NP] Music Theory 2 ................................................................. 3
MUST 123 [NP] Music Theory 3 ................................................................. 3
MUST 124 [NP] Music Theory 4 ................................................................. 3
MUST 131 [NP] Aural Skills 1 ................................................................. 1
MUST 132 [NP] Aural Skills 2 ................................................................. 1
MUST 133 [NP] Aural Skills 3 ................................................................. 1
MUST 134 [NP] Aural Skills 4 ................................................................. 1

APPLIED COURSES, CHOOSE FROM THE FOLLOWING OFFERINGS ACCORDING TO AREA OF CONCENTRATION. FOUR SEMESTERS / FOUR UNITS ARE REQUIRED:

MUSA 121 [NP] Elementary Piano .......................................................... 1
MUSA 122 [NP] Piano Enrichment ............................................................ 1
MUSA 123 [NP] Intermediate Piano .......................................................... 1
MUSA 124 [NP] Applied Piano ................................................................. 1

MUSA 135 [NP] Elementary Harpsichord .............................................. 1
MUSA 141 [NP] Elementary Guitar ......................................................... 1
MUSA 142 [NP] Guitar Performance ....................................................... 1
MUSA 143 [NP] Guitar Enrichment ......................................................... 1
MUSA 144 [NP] Intermediate Guitar ....................................................... 1
MUSA 145 [NP] Applied Classical Guitar .............................................. 1
MUSA 151 [NP] Intermediate Voice 1 ..................................................... 1
MUSA 152 [NP] Intermediate Voice 2 ..................................................... 1
MUSA 153 [NP] Applied Vocal Repertoire 1 ......................................... 1
MUSA 154 [NP] Applied Vocal Repertoire 2 ......................................... 1
MUSA 155 [NP] Vocal Master Class ....................................................... 1
MUSA 161 [NP] Elementary Strings ...................................................... 1
MUSA 163 [NP] Applied Music (Violin & Viola) .................................... 1
MUSA 164 [NP] Applied Music (Cello & Bass) ...................................... 1
MUSA 173 [NP] Applied Music (Brass & Percussion) 1 ........................ 1
MUSA 183 [NP] Applied Music (Woodwinds) ......................................... 1

ENROLLMENT COURSES: CHOOSE FROM THE FOLLOWING OFFERINGS ACCORDING TO AREA OF CONCENTRATION. FOUR SEMESTERS / FOUR UNITS ARE REQUIRED:

MUSE 145 [NP] Guitar Orchestra ............................................................ 1
MUSE 151 [NP] Masterworks Chorus ..................................................... 1
MUSE 155 [NP] Concert Choir ............................................................... 1
MUSE 156 [NP] Chamber Choir .............................................................. 1
MUSE 161 [NP] Community Orchestra ................................................. 1
MUSE 165 [NP] String Orchestra ............................................................ 1
MUSE 166 [NP] Chamber Music (Strings) ............................................ 1
MUSE 171 [NP] Concert Band ................................................................. 1
MUSE 175 [NP] Symphonic Band ............................................................ 1
MUSE 176 [NP] Chamber Music (Band Instruments) .......................... 1
MUSE 181 [NP] Jazz Band ................................................................. 1

IN LIEU OF MUSIC THEORY 1 AND MUSICIANSHIP 1, STUDENT MAY SUBSTITUTE:

MUST 101 MUSIC FUNDAMENTALS .................................................. 3

TOTAL UNITS REQUIRED IN A.A.-T MAJOR .............................................. 23-25

TOTAL UNITS REQUIRED FOR IGETC/CSU BREADTH ........................................... 37-39

TOTAL UNITS REQUIRED FOR CSU-GE BREADTH ........................................... 39

UNITS REQUIRED FOR IGETC/CSU BREADTH ........................................... 37-39

CSU TRANSFERABLE ELECTIVES (AS NEEDED) ......................................... 1-3

DOUBLE-COUNTED UNITS ................................................................. 6

TOTAL UNITS REQUIRED FOR A.A.-T DEGREE .............................................. 60

* Note: Double counting courses in GE and the major is permissible. MJC Guidance and Activities are not required for the Associate in Arts in Music for Transfer degree.

A.A. DEGREE: MUSIC

The MJC Music Program offers courses for students wishing to earn an associate's degree in music, general education courses for non-music majors, and courses designed for community members. These include a comprehensive curriculum of music theory and musicianship. Ensemble and production courses include Concert and Symphonic Bands, Day and Evening Jazz Bands, Concert and Chamber Choirs, Masterworks Chorus, Community Orchestra, Guitar Orchestra, opera/musical theatre productions, chamber music performances, and electronic music productions. The program also offers applied studies in piano, organ, harpsichord, guitar, voice, violin/viola, cello/bass, woodwinds, and brass/percussion, as well as survey courses such as Music Appreciation, Introduction to World Music, Introduction to American Popular Music, and History of Western Music. Repeat Limitations on Applied Music and Ensemble Courses The following limitations apply to all activities listed under Applied Music and Ensembles: each activity is limited to a maximum of four enrollments, regardless of the skill level of the individual courses. For
example, a student may enroll, a) in beginning piano four times or b) twice in beginning piano and twice in intermediate piano. In either of these cases, the student cannot enroll in any additional piano courses because the maximum of four piano courses has been met. Students who have met the limit of repetition may audit the course by registering in the Community Education Office.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate musical literacy by decoding music notation through their instrument and/or voice.
2. Demonstrate the ability to use basic musical notation.
3. Perform and stylistically interpret music on their applied instrument/voice in an ensemble and/or in a solo setting.
4. Demonstrate an awareness of the scope, variety, structure and form of works in the canon of traditional western art music.

To earn an associate degree in arts, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below. Students who plan to transfer to a four-year school are strongly advised to meet with a member of the music faculty.

PROGRAM PREREQUISITES

MUST 101 [P] Music Fundamentals 1 ................................................................. 3 OR SATISFACTORY SCORE on music theory placement examination offered during the first meeting of MUST 120 and/or MUST 121. Students who do not meet entrance proficiencies will be encouraged to enroll in MUST 101 or MUST 120 prior to enrollment in MUST 121.

REQUIRED COURSES IN MUSIC THEORY - COMPLETE 20 UNITS

MUST 121 [1] Music Theory 1 ...........................................................................3
MUST 131 [1] Aural Skills 1 ................................................................................1
MUST 132 [2] Aural Skills 2 ................................................................................1
MUST 133 [3] Aural Skills 3 ................................................................................1
MUST 134 [4] Aural Skills 4 ................................................................................1
MUST 130 [1234] Practica Musica (4 times at 1 unit) ...........................................4

ENSEMBLE-COMPLETE 4 UNITS

Any Of The Following* (Repeated Individually, Or Combined With Each Other To Equal The Required Number Of Units - See Repeat Limitations Above).
MUSE 145 [NP] Guitar Orchestra ..........................................................................1
MUSE 155 [NP] Concert Choir ..............................................................................1
MUSE 161 [NP] Community Orchestra .................................................................1
MUSE 165 [NP] String Orchestra ...........................................................................1
MUSE 175 [NP] Symphonic Band .........................................................................1

APPLIED MUSIC - COMPLETE 4 UNITS

Complete one or more of the courses below appropriate to the student’s instrument or voice (repeat individually, or combined with each other to equal the required number of units - see Repeat Limitations above).
MUSA 121 [NP] Elementary Piano ........................................................................1
MUSA 122 [NP] Piano Enrichment ........................................................................1
MUSA 123 [NP] Intermediate Piano ....................................................................1
MUSA 124 [NP] Applied Piano .............................................................................1
MUSA 145 [NP] Applied Classical Guitar .............................................................1
MUSA 153 [NP] Applied Vocal Repertoire 1 .........................................................1
MUSA 154 [NP] Applied Vocal Repertoire 2 .........................................................1
MUSA 163 [NP] Applied Music (Violin and Viola) ..................................................1
MUSA 164 [NP] Applied Music (Cello and Bass) ....................................................1
MUSA 173 [NP] Applied Music (Brass and Percussion) ...........................................1
MUSA 183 [NP] Applied Music (Woodwinds) ......................................................1

*Music majors will typically combine ensembles and applied studies according to their primary instrument/voice. Vocalists will enroll in Concert Choir and the appropriate applied voice course. Orchestral instrumentalists will enroll in Community Orchestra and the appropriate applied strings course. Band instrumentalists will enroll in Symphonic Band and/or Jazz Band and applied woodwinds or brass/percussion. Guitarists will enroll in Guitar Orchestra and the appropriate applied guitar class. Students are strongly advised to seek the advice of a music faculty member specializing in his/her primary instrument/voice when choosing ensemble and applied music courses.

PIANO*** - COMPLETE 2 UNITS

Any of the following (repeated individually, or combined with each other to equal the required number of units—see Repeat Limitations above)
MUSA 121 [NP] Elementary Piano .................................................................1
MUSA 122 [NP] Piano Enrichment .................................................................1
MUSA 123 [NP] Intermediate Piano .................................................................1
MUSA 124 [NP] Applied Piano 1 ........................................................................1
**Students whose primary instrument is piano may count their applied studies in piano toward this requirement.

TOTAL UNITS IN THE A. A. MAJOR .................................................................... 30

RECOMMENDED MUSIC ELECTIVES .................................................................. 30

ENSEMBLE-COMPLETE 1-2 UNITS

Any ensemble other than the student’s primary ensemble. (Students are advised to seek the advice of a faculty member directing that ensemble to determine if he/she has the appropriate experience to succeed in the ensemble.)

APPLIED MUSIC - COMPLETE 1-2 UNITS

Any applied music course other than that in the student’s primary instrument/voice. (Students are advised to seek the advice of a faculty member specializing in that instrument/voice to determine which level of course is appropriate.)

OTHER - COMPLETE 1-3 UNITS

MUSG 121 [NP] History of Western Music 1 ..........................................................3
MUSG 122 [NP] History of Western Music 2 .........................................................3
MUSP 151 [NP] Musical Theatre Workshop .........................................................1
MUSP 153 [NP] Advanced Musical Theatre Workshop .......................................1

TOTAL OPTIONAL MUSIC ELECTIVES ................................................................ 3-7

Music Courses (MUSA, MUSC, MUSI, MUSP, MUST)

MUSIC: APPLIED COURSES (MUSA)

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

MUSA 121 — ELEMENTARY PIANO ................................................................. 1
Lab Hours
Formerly listed as: MUSIC - 120: Elementary Piano

Essentials of music notation; fundamentals of rhythm, tone production and the coordinated use of both hands; introduction of scales and chords; methods of practice and memorization. Completion of MUSA 121, Elementary Piano is recommended for all general elementary teaching candidates. Electronic keyboard lab and an 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
54 Lab Hours
Formerly listed as: MUSIC - 121: Piano Enrichment
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 121.

Continued development of piano technique, understanding of rhythmic skills and basic music theory. Emphasis upon sight reading and ensemble playing. Electronic piano lab and practice rooms available. Field trips may 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 MUSC 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 of 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. Two completions allowed. (A-F or P/NP) Lab. Graduation: (MJC: Activities) Transfer: (CSU, UC) (CC MUSIC 41A & 41B)

MUSA 124—APPLIED PIANO 1 UNIT
54 Lab Hours
Formerly listed as: MUSA - 124: Advanced Piano, MUSIC - 123: Advanced Piano
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 123.

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

Intended for Music Majors only. Instruction in technical, stylistic, and aesthetic elements of piano performance. Detailed study of technique; study of advanced repertoire and literature from all stylistic periods, from Baroque to contemporary. Four completions allowed. Field trips might be required. (A-F Only) Transfer: (CSU, UC) (CID-MUS 160) Graduation: (MJC: Activities)

MUSA 135—ELEMENTARY HARPSICHORD 1 UNIT
9 Lecture Hours, 27 Lab Hours
Formerly listed as MUSC 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. Graduation: (MJC: Activities). Transfer: (CSU, UC)

MUSA 141—ELEMENTARY GUITAR 1 UNIT
54 Lab Hours
Formerly listed as: MUSIC - 163: Elementary Guitar

Examination of the basic elements of classical guitar technique and repertoire. Technical works will emphasize posture, correct right- and left-hand technique, as well as treble clef note-reading in first position. The course will introduce sight-reading on easy melodies, as well as chord charts. Chord coverage will include: closed finger chords, opened finger chords, and bar chords. The student is responsible for providing a nylon-stringed classical guitar, a guitar tuner, and a foot-stool. All students will perform in a semi-formal performance at the end of the semester. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) (CC MUSIC 49) Graduation: (MJC: Activities)

MUSA 142—GUITAR PERFORMANCE 1 UNIT
18 Lecture Hours
Formerly listed as: MUSA - 142: Guitar Enrichment, MUSIC - 164: Guitar Enrichment
Prerequisite: Satisfactory completion of MUSA 141.

Continuation of MUSA 141. Focus on group performances and an introduction to solo performance. Students will learn to follow notation up to the fifth position in solo and smaller ensembles. Intermediate techniques including tremolo, flamenco strumming, and harmonic playing. Technical exercises and techniques to develop finger independence. A classical, nylon-string guitar is strongly recommended for use in the course. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities).

MUSA 143—GUITAR ENRICHMENT 1 UNIT
54 Lab Hours
Formerly listed as: MUSA - 143: Guitar Advancement, MUSIC - 174: Guitar Advancement
Prerequisite: Satisfactory completion of MUSA 141.

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 142.

Improvement of guitarists’ accompaniment technique, analytical skills, and performance competence. Music education majors are strongly encouraged to enroll. Special attention will be given to performance in solo and group settings. Students will be required to participate in a formal recital at the end of the term. A nylon-string 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).

MUSA 144—INTERMEDIATE GUITAR 1 UNIT
54 Lab Hours
Formerly listed as MUSC 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-string 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) Transfer: (CSU, UC) Graduation: (MJC: Activities)

MUSA 145—APPLIED CLASSICAL GUITAR 1 UNIT
18 Lecture Hours
Formerly listed as MUSIC 166
Corequisite: Concurrent enrollment required in or satisfactory completion of MUSA 144.

Designed for performance majors intending to transfer to four-year institutions. The curriculum 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. Four completions allowed. (A-F or P/NP) Lecture. Graduation: (MJC: Activities) Transfer: (CSU, UC) (CID-MUS 50) (CC MUSIC 180)

MUSA 151—ELEMENTARY VOICE 1 1 UNIT
54 Lab Hours
Formerly listed as MUSC 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
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. Graduation: (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
Corequisite: 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. Graduation: (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. Graduation: (MJC: Activities) Two completions allowed. Transfer: (CSU, UC) (CC MUSIC 56) (CID-MUS 160)

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. Graduation: (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) Lab. Transfer: (CSU, UC) 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 165 — 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. Graduation: (MJC: Activities) Transfer: (CSU, UC)

MUSA 166 — 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. Graduation: (MJC: Activities) Transfer: (CSU, UC) (CC MUSIC 52)

MUSIC: COMMERCIAL COURSES (MUSC)
See “Repeat Limitations on Music Courses.” Students must meet performance and repertoire standards before proceeding to successive levels in the following classes.

MUSC 111—RECORDING ARTS 1  2 UNITS
18 Lecture Hours, 54 Lab Hours
Formerly listed as MUSIC - 172: Recording Arts 1
Introduction to the terminology and practices of the recording arts. Properties of sound, microphone placement, multitrack recording, mixing and mastering. Lab time will be required. Field trips might be required. (A-F or P/NP) Transfer: (CSU) Graduation: (MJC: Activities)

MUSC 112—RECORDING ARTS 2  2 UNITS
18 Lecture Hours, 54 Lab Hours
Formerly listed as MUSIC - 178: Recording Arts 2
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSC 111.
Advanced topics in the recording studio relating to the digital recording process. In depth study of microphone choice and placement, microphone pre-amplifiers and analog processors, direct inputting, non-destructive digital editing, software plug-ins, automation techniques, mixing and mastering in the recording process. Lab time will be required. Two completions allowed. Field trips might be required. (A-F or P/NP) Transfer: (CSU) Graduation: (MJC: Activities)

MUSC 121—INTRODUCTION TO THE SYNTHESIZER AND MIDI  2 UNITS
18 Lecture Hours, 54 Lab Hours
Formerly listed as MUSIC 170
Introduction to synthesizer and electronic keyboard sound design and operational procedures. MIDI (Musical Instrument Digital Interface) music studio techniques will be examined and utilized in an electronic music studio environment. Music acoustics, electronic music composition, synthesizer live performance, digital sampling, audio recording and music software programs will be explored. (A-F or P/NP) Lecture/Lab. Graduation: (MJC: Activities) Transfer: (CSU)

MUSC 122—ELECTRONIC MUSIC 2  2 UNITS
18.00 Lecture Hours, 54.00 Lab Hours
Formerly listed as MUSIC - 171: Electronic Music 2
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSC 121 or have previous synthesizer, tape recording and MIDI music studio experience.
Applied topics in electronic music composition, MIDI (Musical Instrument Digital Interface) music studio procedures, sampling, tape and digital recording. Performance in an electronic music concert is expected. Two completions allowed. Field trips are not required. (A-F or P/NP) Transfer: (CSU) Graduation: (MJC: Activities)

MUSC 126—MUSIC PRODUCTION FOR MULTIMEDIA  2 UNITS
18 Lecture Hours, 54 Lab Hours
Formerly listed as MUSC 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). Transfer: (CSU)
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. Graduation: (MJC: Activities) Transfer: (CSU, UC)

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 MUSE 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. Graduation: (MJC: Activities) Transfer: (CSU, UC) (CID-MUS 180)

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/Lab. Graduation: (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. Four completions allowed. (A-F or P/NP) Lab. Graduation: (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. Four completions
allowed. (A-F or P/NP) Lab. Graduation: (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. Graduation: (MJC: Activities) Transfer: (CSU, UC) (CID-MUS 180)

MUSE 851—MASTERWORKS CHORUS  0 UNITS
54 Lab Hours
Formerly listed as OLDAD 854
Study and performance of either one large-scale work or program of shorter works.
Public performance required. Not a graded course. Unlimited repeats. Lecture/Laboratory.

MUSE 861—COMMUNITY ORCHESTRA  0 UNITS
54 Lab Hours
Formerly listed as OLDAD 862
Study and performance of a combination of large-scale and shorter works for orchestra.
Public performance required. Field trips may be required. Laboratory/Rehearsal. Unlimited repeats. Not a graded course.

MUSE 871—CONCERT BAND  0 UNITS
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. Unlimited repeats. Laboratory/Rehearsal. Not a
graded course.
### MUSIC: GENERAL COURSES (MUSG)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>MUSG 101 —</td>
<td>MUSIC APPRECIATION</td>
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<td>Lecture Hours</td>
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<tr>
<td></td>
<td>Formerly listed as: MUSIC - 110: Music Appreciation</td>
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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) (CC MUSIC 2) (CID-MUS 100) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>MUSG 102 —</td>
<td>INTRODUCTION TO WORLD MUSIC</td>
<td>3</td>
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<td>Lecture Hours</td>
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<tr>
<td></td>
<td>Formerly listed as: MUSIC - 169: Introduction to World Music</td>
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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)

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<th>Course Code</th>
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<tr>
<td>MUSG 111 —</td>
<td>INTRODUCTION TO AMERICAN POPULAR MUSIC</td>
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<td>Lecture Hours</td>
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<td>Formerly listed as MUSIC 118</td>
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Survey course emphasizing the listener's 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)

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<th>Course Code</th>
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<tr>
<td>MUSG 112 —</td>
<td>THE MUSIC OF THE BEATLES</td>
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<td>Lecture Hours</td>
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<td>Formerly listed as MUSIC 190</td>
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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)

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<th>Course Code</th>
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<td>MUSG 121 —</td>
<td>HISTORY OF WESTERN MUSIC 1</td>
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<td>Formerly listed as MUSIC 112</td>
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</table>

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)

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<td>MUSG 122 —</td>
<td>HISTORY OF WESTERN MUSIC 2</td>
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<td>Lecture Hours</td>
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<td>Formerly listed as MUSIC 113</td>
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</table>

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)

### MUSIC: INDEPENDENT ACTIVITIES COURSES (MUSI)

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>MUSI 349 A-D</td>
<td>WORK EXPERIENCE IN THE ARTS – SUPERVISORY PRACTICE</td>
<td>1</td>
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</tbody>
</table>

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)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>MUSI 151 —</td>
<td>MUSICAL THEATRE WORKSHOP</td>
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<tr>
<td></td>
<td>Lecture/Lab Hours</td>
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<td>Formerly listed as MUSIC 157</td>
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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. Graduation: (MJC: Activities) Transfer: (CSU, UC)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MUSI 153 —</td>
<td>ADVANCED MUSICAL THEATRE WORKSHOP</td>
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<td>Lecture/Lab Hours</td>
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<td>Formerly listed as MUSIC 158</td>
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Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSI 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. Graduation: (MJC: Activities) Transfer: (CSU, UC)

### MUSIC: THEORY COURSES (MUST)

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<th>Course Title</th>
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<tr>
<td>MUST 101 —</td>
<td>MUSIC FUNDAMENTALS 1</td>
<td>3</td>
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<td>Lecture Hours</td>
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<td></td>
<td>Formerly listed as: MUSIC 100: Music Fundamentals 1</td>
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</table>

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)

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<tr>
<th>Course Code</th>
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<tr>
<td>MUST 121 —</td>
<td>MUSIC THEORY 1</td>
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<td>Lecture Hours</td>
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<td>Formerly listed as: MUSIC 102: Music Theory 1</td>
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Prerequisite: Satisfactory completion of MUST 101. Corequisite: Concurrent enrollment in MUST 131

Brief review of primary Music Fundamentals topics; Tonality; Introduction to common harmonic practice through exercises in part writing and figured bass, simple guided composition, and analysis. Field trips are not required. (A-F or P/NP) 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  
54 Lecture Hours  
Formerly listed as: MUSIC 103: Music Theory 2  
Prerequisite: Satisfactory completion of MUST 121.  
Corequisite: Concurrent enrollment in MUST 122.  
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 208)  
(CID-MUS 130) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A) 

MUST 123—MUSIC THEORY 3  
3 UNITS  
54 Lecture Hours  
Formerly listed as: MUSIC 106: Music Theory 3  
Prerequisite: Satisfactory completion of MUST 122.  
Recommended for Success: Before enrolling in this course, students are strongly  
advised to be concurrently enrolled in MUST 133.  
This course incorporates concepts from Music Theory 2. In addition, the course continues the  
development of writing and analytical techniques of tonal music through writing in  
4 parts, figured bass, Roman numeral analysis, and guided composition exercises.  
Introduction to chromatic harmony; modulation; modal mixture; Binary and Ternary  
forms; Sonata Form Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) (CC:  
MUSIC 21A) (CID-MUS 140) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A) 

MUST 124—MUSIC THEORY 4  
3 UNITS  
54 Lecture Hours  
Formerly listed as: MUSIC 107: Music Theory 4  
Prerequisite: Satisfactory completion of MUST 123  
This course incorporates concepts from Music Theory 3. In addition, the course  
continues the development of analytical techniques, guided composition and figured bass  
realization in 4 parts; continued overview of larger forms such as Sonata and Rondo; study  
of harmonic procedures at the edge of tonality; chromatic modulation; re-interpretation of  
diminished 7th chords; chromatic sequences; introduction to 20th Century compositional  
techniques and styles such as Symbolism / Impressionism, serialism and polytonalism.  
Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) (CC: MUSIC 21B) (CID-MUS  
150) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A) 

MUST 130—PRACTICA MUSICA  
1 UNIT  
54 Lab Hours  
Formerly listed as: MUSIC - 197: Practica Musica  
Development of aural and rhythmic skills by means of computer assisted participation.  
Exposure to standard western art music repertoire by means of guided listening.  
Four completions allowed. Field trips are not required. (A-F or P/NP) Transfer: (CSU)  
Graduation: (MJC Activities) 

MUST 131—AURAL SKILLS 1  
1 UNIT  
54 Lab Hours  
Formerly listed as: MUSIC - 104: Aural Skills 1  
Corequisite: Concurrent enrollment in or satisfactory completion of MUST 121.  
Recommended for Success: Before enrolling in this course, students are strongly  
advised to satisfactorily complete MUST 101 and concurrently enroll in a lab experience  
such as MUST 130, Practica Musica.  
Supplements the study of written music theory (MUST 121) by practical application of  
singing, ear-training, and performance techniques; integration of the two basic  
musical elements pitch and rhythm through weekly singing of diatonic melodies from  
 textbook using movable Do Solfege; analysis, rhythmic and melodic dictation; use of  
computer assisted instruction in Practica Musica,lab portion of the class (MUST 130).  
Field trips might be required. (A-F Only) Transfer: (CU, UC) (CC: MUSIC 4A) (CID-MUS  
125) Graduation: (MJC Activities) 

MUST 132—AURAL SKILLS 2  
1 UNIT  
54 Lab Hours  
Formerly listed as: MUSIC - 105: Aural Skills 2  
Prerequisite: Satisfactory completion of MUST 131.  
Corequisite: Concurrent enrollment in or satisfactory completion of MUST 122.  
Sequential continuation of MUST 131, Aural Skills 1; supplements the study of  
written music theory (MUST 122) by practical application of singing, ear-training,  
and performance techniques; further development of musicianship skills through  
weekly singing of diatonic melodies from textbook using movable Do Solfege; analysis,  
rhythmic and melodic dictation; use of computer assisted instruction in Practica Musica,lab portion  
of the class (MUST 130). Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC)  
(CC: MUSIC 4B) (CID-MUS 135) Graduation: (MJC Activities) 

MUST 133—AURAL SKILLS 3  
1 UNIT  
54 Lab Hours  
Formerly listed as: MUSIC - 109: Aural Skills 3  
Prerequisite: Satisfactory completion of MUST 132.  
Recommended for Success: Before enrolling in this course, students are strongly  
advised to satisfactorily complete MUST 123.  
Sequential continuation of MUST 132, Aural Skills 2; supplements the study of  
written music theory (MUST 123) by practical application of singing, ear-training,  
and performance techniques; further development of musicianship skills through  
weekly singing of diatonic as well as chromatic melodies from textbook using movable Do Solfege  
and conducting; basic keyboard skills to harmonize weekly melodies and achieve correct  
tonation; 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  
54 Lab Hours  
Formerly listed as: MUSIC - 108: Aural Skills 4  
Prerequisite: Satisfactory completion of MUST 133.  
Corequisite: Concurrent enrollment in or satisfactory completion of MUST 124.  
Sequential continuation of MUST 133, Aural Skills 3; supplements the study of written  
music theory (MUST 124) by practical application of sight singing, ear-training, analysis  
and dictation; further development of musicianship skills through weekly singing of  
chromatic and atonal melodies with conducting; further development of keyboard skills  
to harmonize weekly melodies. Field trips might be required. (A-F Only) Transfer: (CSU, UC)  
(CC: MUSIC 5B) (CID-MUS 155) Graduation: (MJC Activities) 

MUST 141—MUSICIANSHIP AND GUIDED LISTENING 1  
1 UNIT  
18 Lecture Hours  
Recommended for Success: Before enrolling in this course, students are strongly  
advised to satisfactorily complete MUST 101.  
Musicianship and Guided Listening is a series of 4 sequential courses designed to  
complement Music Theory and Aural Skills classes. Development of aural and rhythmic  
skills by means of computer assisted participation in the music lab. Exposure to landmark  
works from the standard western art music repertoire by means of guided listening.  
Refinement of listening skills; attainment and development of proper terminology to  
describe musical events and parameters. Field trips might be required. (P/NP Only)  
Transfer: (CSU) Graduation: (MJC Activities)
MUSICIANSHIP AND GUIDED LISTENING 2  
18 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 101.

Musicianship and Guided Listening is a series of 4 sequential courses designed to complement Music Theory and Aural Skills classes. Development of aural and rhythmic skills by means of computer assisted participation in the music lab. Exposure to landmark works from the standard western art music repertoire by means of guided listening. Refined of listening skills; attainment and development of proper terminology to describe musical events and parameters. Field trips might be required. (P/NP Only)
Transfer: (CSU) Graduation: (MJC: Activities)

MUST 143—MUSCIANSHIP AND GUIDED LISTENING 3  
18 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 101.

Musicianship and Guided Listening is a series of 4 sequential courses designed to complement Music Theory and Aural Skills classes. Development of aural and rhythmic skills by means of computer assisted participation in the music lab. Exposure to landmark works from the standard western art music repertoire by means of guided listening. Refined of listening skills; attainment and development of proper terminology to describe musical events and parameters. Field trips might be required. (P/NP Only)
Transfer: (CSU) Graduation: (MJC: Activities)

MUST 144—MUSCIANSHIP AND GUIDED LISTENING 4  
18 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 101.

Musicianship and Guided Listening is a series of 4 sequential courses designed to complement Music Theory and Aural Skills classes. Development of aural and rhythmic skills by means of computer assisted participation in the music lab. Exposure to landmark works from the standard western art music repertoire by means of guided listening. Refined of listening skills; attainment and development of proper terminology to describe musical events and parameters. Field trips might be required. (P/NP Only)
Transfer: (CSU) Graduation: (MJC: Activities)

MAJOR REQUIREMENTS
To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

I. AGRICULTURE CAREER REQUIRED COURSES - COMPLETE 5 UNITS
AG 115* [1] Introduction to Agricultural Education and Careers .........................1
AG 249** [NP] Internship .................................................................2 OR
AG 349A-D [NP] Work Experience Agriculture - Supervised Practice ............1 - 4

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS
PLSC 200 [1,2] Introduction to Plant Science ........................................3
NR 200 [NP] Soils ..............................................................................3
AGM 200 [NP] Introduction to Mechanical Technology .................................3
AGEC 225 [NP] Agriculture Computer Applications ......................................3 OR
AGEC 210 [NP] Elements of Agricultural Economics .....................................3 OR
AGEC 200 [NP] Agricultural Accounting and Analysis ..................................3

III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS
NR 230 [2] Outdoor/Forest Recreation ..................................................3
NR 222 [2,3] Native Tree & Shrub Identification ..........................................3
NR 220 [1] Introduction to Forestry .........................................................3

IV. AGRICULTURE MAJOR ELECTIVE - COMPLETE 7 UNITS
Any Natural Resources course not listed or used above ................................3
EHS 276 [NP] Landscape Maintenance ....................................................3
AG 280 [NP] Agriculture Computations ...................................................3
AGM 230 [NP] Field Surveying .............................................................2
AG 285 [NP] Agricultural Communications ...............................................3
AGM 215 [NP] Machinery Management ..................................................3
HE 100 [NP] Standard First Aid/CPR ......................................................1

TOTAL UNITS IN A.S. MAJOR ......................................................... 30
*Required
**Internship/Work Experience must be Agriculture related
Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 349A-C, or a combination of AG 349A-C, or a combination of AG 249 and AG 349A-B.
* Pending State Chancellor’s Office approval.

A.S. DEGREE: SOIL SCIENCE

In this program the student will develop skills and knowledge for entry-level employment in fields of soil and water management. These fields may include conservation, analysis, survey and farm management, as well as related fields such as range management, hydrology, irrigation, drainage, fertilization, and rural and urban planning. This program will also prepare the student for transfer to a university. Contact the division office in the Agriculture Building for advising assistance.

PROGRAM LEARNING OUTCOMES
Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate sufficient mastery of forestry and land management skills for technical employment in the natural resource management.
2. Apply the principles of ecology, soil science, silviculture, cartography, and facilities maintenance and development to sustainable resources management problems.
3. Develop environmental ethics as an operational philosophy for resource management, public education of natural resources, and wildlife management.

PROGRAMS AND COURSES
N: NATURAL RESOURCES

1. Employ the scientific method to solve problems in the laboratory and in the natural environment.
2. Practice safe work habits in an employment setting, including handling and storage of hazardous materials and operation of basic tools and equipment.
3. Demonstrate sufficient mastery of forestry and land management skills for technical employment in the natural resource management.
4. Apply the principles of ecology, soil science, silviculture, cartography, and facilities maintenance and development to sustainable resources management problems.
5. Develop environmental ethics as an operational philosophy for resource management, public education of natural resources, and wildlife management.

MAJOR REQUIREMENTS

To earn an Associate in Science Degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway or the University Preparation Pathway which include completion of the requirements below.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

AG 115 * Introduction to Agricultural Education & Careers ....................................................1
AG 249 ** [4] Agriculture Internship .................................................................................. 2 OR
AG 349ABCD [NP] Work Experience Agriculture - Supervised Practice .........................1 - 4

II. AGRICULTURE SCIENCE BREATH CORE - COMPLETE 9 UNITS

PLSC 200 [NP] Introduction to Plant Science .................................................................3
ANSC 200 [NP] Introduction to Animal Science .................................................................3
AGM 200 [NP] Introduction to Mechanical Technology .....................................................3
AGEC 200 [NP] Agricultural Accounting and Analysis ....................................................3
AGEC 210 [NP] Elements of Agricultural Economics .......................................................3
AGEC 225 [NP] Agriculture Computer Applications .........................................................3

III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS

COMPLETE 4 UNITS
NR 200[NP] Soils ............................................................................................................. 4

COMPLETE 5 UNITS
AGM 235 [NP] Irrigation and Drainage .......................................................................... 3
PLSC 250 [NP] Plant Nutrition and Fertilizer ................................................................. 3
PLSC 230 [NP] Fruit Science .......................................................................................... 3
PLSC 205 [NP] Field Crops ........................................................................................... 3
NR 220 [NP] Introductory Forestry ................................................................................ 3
PLSC 241 [NP] Viticulture ............................................................................................. 3

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 7 UNITS

NR 222 [NP] Native Tree and Shrub Identification ......................................................... 3
NR 224 [NP] Intro to Forest Measurement ....................................................................... 3
EHS 210 [NP] Introduction to Environmental Horticulture Science ............................ 3
PLSC 255 [NP] Plant Pest Control .................................................................................. 3
AGM 230 [NP] Field Surveying ...................................................................................... 3
PLSC 260 [NP] Plant Disease Control .......................................................................... 3
AGEE 146 [NP] Agriculture, Environment and Society .................................................. 3

Any course not already taken in Area III. above

TOTAL UNITS .................................................................................................................. 30

*Required
**Internship/Work Experience must be Agriculture related
Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 349D, or a combination of AG 349A-C, or a combination of AG 249 and AG 349A-B.
* Pending State Chancellor’s Office approval.

CERTIFICATE OF ACHIEVEMENT: RECREATIONAL LAND MANAGEMENT

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Employ the scientific method to solve problems in the laboratory and in the natural environment.
2. Practice safe work habits in an employment setting, including handling and storage of hazardous materials and operation of basic tools and equipment.
3. Demonstrate sufficient mastery of forestry and land management skills for technical employment in the natural resource management.
4. Apply the principles of ecology, soil science, silviculture, cartography, and facilities maintenance and development to sustainable resources management problems.
5. Develop environmental ethics as an operational philosophy for resource management, public education of natural resources, and wildlife management.

MAJOR REQUIREMENTS

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

I. AGRICULTURE CAREER CORE - COMPLETE 5 UNITS

AG 115 [1] Introduction to Agricultural Education and Careers ..................................1
AG 349 A-D [NP] Work Experience (total of 4 units) .................................................. 4 OR
AG 249 [NP] Agriculture Internship ........................................................................ 2 OR

II. AGRICULTURE SCIENCE BREATH CORE - COMPLETE 9 UNITS

PLSC 200 [1,2] Introduction to Plant Science .................................................................3
ANSC 200 [1,2] Introduction to Animal Science .................................................................3
NR 200 [1,2] Soils ............................................................................................................. 3
AGM 225 [NP] Agriculture Computer Applications .........................................................3 OR
AGEC 210 [NP] Elements of Agricultural Economics ....................................................3 OR
AGEC 200 [NP] Agricultural Accounting and Analysis ...................................................3 OR

III. MAJOR REQUIRED COURSES FOR CERTIFICATE - COMPLETE 9 UNITS

NR 222 [2,3] Native Tree & Shrub Identification .................................................................3
NR 220 [1] Introductory Forestry ................................................................................... 3
NR 379 [NP] Wildland Fire Control ............................................................................... 1

IV. ELECTIVE COURSES FOR CERTIFICATE - COMPLETE 12 UNITS

Any Natural Resources class not listed or used above
AG 280 [NP] Agricultural Computations .................................................................... 3
AGM 230 [NP] Field Surveying ..................................................................................... 3
AG 285 [NP] Agricultural Communications ................................................................. 3
AGM 215 [NP] Machinery Management ....................................................................... 2
EHS 276 [NP] Landscape Maintenance ....................................................................... 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT .............................................. 35

**Required
NR 200—SOILS 4 UNITS
36 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 NATRE 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) (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 227—INTRODUCTORY SOILS 3 UNITS
9 Lecture Hours, 27 Lab Hours

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

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) (CC NATRE 22)

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 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)
2. Be prepared to obtain employment in an entry-level position assisting in network design and implementation.
3. Design, implement and document a client/server network complete with security policy and a disaster recovery plan for a small-business network.
4. Demonstrate professional and effective communication skills.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES – COMPLETE 13 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CSCI 210 [1] UNIX/Linux OS</td>
<td>3</td>
<td></td>
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</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ........................ 15

CERTIFICATE OF ACHIEVEMENT: COMPUTER NETWORK TECHNICIAN

This certificate is designed for students seeking entry-level job positions in computer network administration, designing networks, installing server and client operating systems, configuring network services, and implementing network security. All of these courses are also preparation for Microsoft certification as a Microsoft Certified Professional (MCP) in the individual subject. A student who has completed the Network Administration Certificate would be eligible to complete the Microsoft Certified Systems Engineer (MCSE) certification with the completion of just one additional course from the options list.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate a firm understanding and working knowledge of basic network troubleshooting techniques.
2. Be prepared to obtain employment in an entry-level position as a network technician and help-desk support tech.
3. Install, configure, upgrade and maintain personal computer hardware and operating systems.
4. Install, configure, and troubleshoot basic networking hardware and protocols.
5. Provide support for users of operating systems, applications and computer information systems.
6. Demonstrate professional and effective communication skills.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES – COMPLETE 13 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ELTEC 208 [1] World of Electricity and Electronics</td>
<td>3</td>
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<tr>
<td>CSCI 210 [1] UNIX/Linux Systems and Programming</td>
<td>3</td>
<td></td>
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<tr>
<td>CSCI 201 [1] General Computer Literacy</td>
<td>3</td>
<td></td>
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<tr>
<td>CMPET 206 [1] Personal Computer Assembly, Upgrading and Repr</td>
<td>3</td>
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</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ........................ 15

* Pending State Chancellor’s Office approval.

Nursing: Associate Degree Nursing (For RN) PROGRAM

The Associate Degree Nursing (ADN) Program at Modesto Junior College prepares students to take the National Council Licensure Examination (NCLEX-RN), leading to licensure as a Registered Nurse (RN). The program is approved by the California Board of Registered Nursing. The ADN Program begins in the fall and spring semesters of each year. It is a four-semester program. Although most classes are scheduled during the day, clinical experiences may include both morning and evening hours and weekends. During the five-week Preceptorship in NURSE 267, students will be expected to be in the clinical area on a full-time basis. Students must be flexible and prepared to accept these assignments.

Program expenses vary for each individual. The estimated cost for the program is $6,800. First semester start-up costs are $2,500. Second, third, and fourth semesters costs total $4,300 These costs include enrollment and materials fees, background check and drug screen fees, health clearance, Basic Life Support (BLS) Certification, uniforms, books, and pre-licensure readiness examination. Daily access to a computer and the internet is recommended for student success.

If you would like information on Financial Aid, call (209) 575-7700. If you would like more information about the program and the selection process, please enroll in NURSE 115: Introduction for Nursing Majors. If you have questions about program information, call Allied Health, 575-6362 or visit the Allied Health website at www.mjc.edu/alliedhealth and search Associate Degree Nursing (ADN) Program. If you are just beginning your preparation for the nursing program and need academic advising, contact the Counseling Center (209) 575-6080.

ELIGIBILITY AND PREPARATION

FOR THE ASSOCIATE DEGREE NURSING PROGRAM

• Admission to Modesto Junior College
• High School Graduation or equivalent (GED or College Degree) If you have transcripts on file verifying a college degree, you do not need to have your high school transcripts on file
• Official Transcripts on File in MJC Enrollment Services: All transcripts (from colleges other than MJC and CC ) must be submitted as a part of your documentation packet if requested by the ADN Program, unless the transcripts are already on file in the MJC Enrollment Services, Student Services Building 102, (209) 575-6853. We will accept hand-carried transcripts that are in a sealed envelope with a school seal.

REQUIRED MATH COMPETENCY FOR ACCEPTANCE INTO THE ADN PROGRAM

• Eligibility for entrance into any 100-level MATH course through MJC Assessment process OR
• Score of 3, 4, or 5 on AP Exam: Calculus AB OR Calculus BC or Statistics OR
• Completion of MATH 89 at MJC or higher level MATH course, or an equivalent course from another institution with a grade of C or higher. Course may be taken as P/IP or CR/NC

Bachelor’s degree holders are considered to have met this requirement.

PROGRAM APPLICATION

Effective with the May 2014 application period, the ADN program application will be online only. Applications are accepted for the ADN Program once per year. The annual application period is May 1 through May 31. Students are selected from the annual
applicant pool for fall and spring semesters of that academic year. Applications are available on the Allied Health website (www.mjc.edu/alliedhealth) during the May application period only. If you are interested in the MJC ADN transfer policy go to www.mjc.edu/alliedhealth.

**SELECTION PROCESS**

**CHANGES IN THE SELECTION PROCESS**
The ADN Program utilizes a multicriteria screening process for admission. Detailed information is posted on the ADN website.

**MULTICRITERIA SCREENING PROCESS**
The ADN program selects students based on a Multicriteria Screening Process. This selection model is based on Assembly Bill 1559. Applicants will be evaluated on academic degree, relevant licenses or certificates, relevant work or volunteer experience, GPA in relevant coursework, life experiences and special circumstances, proficiency in a language other than English and the Test of Essential Academic Skills (TEAS). The TEAS measures skills in the content area domains of Reading, Mathematics, Science and English and Language Usage. Preparation materials are available from Assessment Technologies Institute (ATI) at www.atitesting.com.

Prospective nursing students are required to have a passing score (62%) or higher on version V of the Test of Essential Academic Skills (TEAS) within the first three attempts to apply to the MJC Associate Degree Nursing (ADN) program. For information on scheduling a TEAS, go to atitesting.com. The TEAS is offered at the MJC testing center.

**ADDITIONAL REQUIREMENTS FOR ACCEPTED APPLICANTS ONLY**
Accepted applicants will receive information regarding clinical clearance.

**CLINICAL CLEARANCE**

**HEALTH CLEARANCE**
- A medical history and physical examination completed by a physician, physician's assistant, or nurse practitioner within 6 months prior to program start date. The physical must state that the applicant does not have any health conditions that would create a hazard to self, employees, or patients.
- Documentation of required immunizations.
- A negative PPD skin test must be obtained. If a positive reaction is obtained, or has previously been obtained, a chest x-ray must be taken unless medically contraindicated.

**BACKGROUND CHECK**
All students participating in clinical assignments are required by acute care hospitals to complete a background check and be cleared by the clinical facility in order to participate in the clinical experience. See Policy for Denial of Licensure below.

**DRUG SCREEN**
All students participating in clinical assignments will be required to pass a drug screen.

**BASIC LIFE SUPPORT (BLS) CERTIFICATION**
The ADN program will offer a Health Care Provider BLS class from the American Heart Association for all accepted applicants.

**SCHOLASTIC REQUIREMENTS**
Continuation in the ADN Program is dependent upon completion of all courses with a C or better. If a student receives less than a C in any required course, that course must be repeated with a C or better in order to qualify for the National Council Licensure Examination (NCLEX-RN).

**POLICY FOR DENIAL OF LICENSURE**
The California Board of Registered Nursing protects the public by screening applicants for licensure in order to identify potentially unsafe practitioners. Statutory authority for denial of licensure is contained in the Business and Professions Code. Any student considering a career in nursing who has a criminal record is advised to go to the BRN website at www.rn.ca.gov and search Enforcement and then License Discipline and Convictions prior to applying to the ADN Program.

- Criminal Record Per the Board of Registered Nursing, pre-nursing students with a criminal record should attempt to have convictions expunged prior to applying for entrance into the nursing program. A criminal record may prevent students from clinical placement and therefore, continuing in a nursing program.

**PROGRAM ADVISORY**
* Students are strongly advised to complete the additional MJC GE Graduation Requirements (Activities – 2 units, Guidance 0.5 unit, and Humanities – 3 units) prior to entering the ADN Program. These courses must be completed by the end of the 4th semester of the program with a grade of C or better in order to complete the ADN program and be eligible to take the NCLEX-RN exam. To graduate from the MJC ADN program, a student must: 1) complete all ADN program requirements; 2) complete the 4th semester of the MJC ADN program; 3) complete 12 units “in residence” at MJC; and 4) complete the MJC GE graduation requirements.

**A.S. DEGREE: NURSING (FOR RN)**
The Associate Degree Nursing (ADN) Program at Modesto Junior College prepares students to take the National Council Licensure Examination (NCLEX-RN), leading to licensure as a Registered Nurse (RN). The program is approved by the California Board of Registered Nursing.

**PROGRAM LEARNING OUTCOMES**
Upon satisfactory completion of this award, the student should be prepared to:

1. Provide competent nursing care based on scientific principles, the Roy Adaptation Model, and the nursing process, reflecting on ethical caring evidenced by respect for patients and families, self, colleagues, and the profession.
2. Identify a nursing diagnosis following assessment of the patient's physical condition and behavior, and analysis of information obtained from the patient and others, including members of the healthcare team.
3. Formulate a care plan, in collaboration with the patient that ensures direct and indirect nursing care services provide for the following patient needs: safety, comfort, hygiene, protection, disease prevention, and restorative measures.
4. As provider and manager of care, establish priorities, perform the skills required to carry out nursing interventions, explain the plan of care to the patient and family, and teach the patient and family how to care for identified health problems and needs.
5. Manage and prioritize care for groups of patients; delegate tasks to subordinates based on the legal scope of practice of the subordinates and on the preparation and competence needed for the tasks to be delegated; effectively supervise the nursing care provided by subordinates.
6. Evaluate the effectiveness of the care plan through observation of the patient's condition and behavior, signs and symptoms of illness, and reactions to treatment, and thorough communications with the patient and healthcare team; modify the plan as needed.
7. Advocate for the rights of patients by initiating actions to improve health care, facilitate changes in decisions or activities which conflict with patients' self-determination, and provide patients' the opportunity to make informed decisions about their health care.
8. Recognize that each person is a unique individual with biological, psychological, social, and spiritual needs; understand how a person's self-concept, role function, and interdependence are affected by the values, attitudes, life experiences, culture, ethnicity, and support systems of each person.
ELECTIVE COURSES (NURSING: WORK EXPERIENCE)

TOTAL UNITS IN PREREQUISITE COURSES ..................................................................... 26

PROGRAM REQUIREMENTS

[FIRST SEMESTER]
NURSE 260 Nursing Process: Pharmacology ..................................................2
NURSE 261 Nursing Process: Fundamentals ......................................................8

[SECOND SEMESTER]
NURSE 262 Nursing Process: Skills .................................................................0.5
NURSE 263 Nursing Process: Maternity ............................................................4
NURSE 264 Nursing Process: Pediatrics .............................................................4.5

[THIRD SEMESTER]
NURSE 265 Nursing Process: Medical-Surgical ..............................................6
NURSE 266 Nursing Process: Mental Health ......................................................4

[FOURTH SEMESTER]
NURSE 267 Nursing Process: Adv. Medical - Surgical ....................................11

TOTAL UNITS IN NURSING MAJOR ..................................................................... 40
TOTAL UNITS with PREREQUISITE COURSEWORK & NURSING MAJOR COURSEWORK - .......................................................................................................................... 66

A.S. DEGREE: NURSING (FOR RN)

To earn an Associate in Science Degree in Nursing, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) in addition to the Nursing coursework. Consult with an advisor for selection of courses. (5.5 units)

MINIMUM UNITS IN A.S. DEGREE ......................................................................... 71.5

A.S. DEGREE NURSING: LVN TO ADN (RN) ADVANCED PLACEMENT PATHWAY

The Licensed Vocational Nurse (LVN) to Associate Degree Nursing (ADN) Advanced Placement Pathway at Modesto Junior College prepares students to take the National Council Licensure Examination (NCLEX-RN), leading to licensure as a Registered Nurse (RN). The pathway is approved by the California Board of Registered Nursing.

The LVN to ADN Advanced Placement Pathway begins in the fall and spring semesters of each year. It is a two-semester pathway. Although most courses are scheduled during the day, clinical experiences may include both morning and evening hours and weekends. During the five-week preceptorship NURSE 267, students will be expected to be in the clinical area on a full-time basis. Students must be flexible and prepared to accept these assignments.

Pathway expenses vary for each individual. The estimated cost for the pathway is $4,000. First semester start-up costs are $2,000. Second semester costs $2,000. These costs include enrollment and materials fees, background check and drug screen fees, health clearance, Basic Life Support (BLS) certification, uniforms, books and pre-licensure readiness examination. Daily access to a computer and the internet is recommended for student success. If you would like information on Financial Aid, call 575-7700. For academic advising contact Allied Health, 575-6362. If you have questions about the program information, call Allied Health, 575-3662 or visit the Allied Health website at www.mjc.edu/alliedhealth and search LVN to ADN Advanced Placement Pathway.

ELIGIBILITY AND PREPARATION FOR THE LVN TO ADN ADVANCED PLACEMENT PATHWAY

• Admission to Modesto Junior College

• High School Graduation or Equivalent (GED or College Degree). If you have transcripts on file verifying a college degree you do not need to have your high school transcripts on file

• Official Transcripts on File in MJC Enrollment Services: If current college transcripts are not already on file in MJC Enrollment Services (Student Services building 102, (209) 575-6853, applicants selected to provide documentation will be required to submit official transcripts to the Allied Health office during a specified time period. We will accept hand-carried transcripts that are in a sealed envelope with a school seal.

REQUIRED MATH COMPETENCY FOR ACCEPTANCE INTO THE ADN PROGRAM

• Eligibility for entrance into any 100-level MATH course through MJC Assessment process OR

• Score of 3, 4, or 5 on AP Exam: Calculus AB or Calculus BC or Statistics OR

• Completion of MATH 89 at MJC or higher level MATH course, or an equivalent course from another institution with a grade of C or higher. Course may be taken as a P/NC or CR/NC

Bachelor’s degree holders are considered to have met this requirement.

PATHWAY APPLICATION

The application is online only. Applications are accepted once a year. The annual application period is May 1 through May 31. Students are selected from the annual applicant pool for fall and spring semesters of that academic year. Applications are available on the Allied Health website (www.mjc.edu/alliedhealth) during the May application period only. If you are interested in the MJC ADN transfer policy go to www.mjc.edu/alliedhealth.
**SELECTION PROCESS**

**CHANGES IN THE SELECTION PROCESS**
The LVN to ADN Advanced Placement Pathway will utilize a multicriteria screening process for admission effective with the May 2014 application period. Detailed information is posted on the ADN website.

**MULTICRITERIA SCREENING PROCESS**
The ADN program selects students based on a Multicriteria Screening Process. This selection model is based on Assembly Bill 1559. Applicants will be evaluated on academic degree, relevant licenses or certificates, relevant work or volunteer experience, GPA in relevant coursework, life experiences and special circumstances, proficiency in a language other than English and the Test of Essential Academic Skills (TEAS). The TEAS measures skills in the content area domains of Reading, Mathematics, Science and English and Language Usage. Preparation materials are available from Assessment Technologies Institute (ATI) at www.atitesting.com.

Prospective nursing students are required to have a passing score (62%) or higher on version V of the Test of Essential Academic Skills (TEAS) within the first three attempts to apply to the MJC Associate Degree Nursing (ADN) program. For information on scheduling a TEAS, go to atitesting.com. The TEAS is offered at the MJC testing center.

**ADDITIONAL REQUIREMENTS FOR ACCEPTED APPLICANTS ONLY**
Accepted applicants will receive information regarding clinical clearance.

**CLINICAL CLEARANCE**

**HEALTH CLEARANCE**
- A medical history and physical examination completed by a physician, physician’s assistant, or nurse practitioner within 6 months prior to program start date. The physical must state that the applicant does not have any health conditions that would create a hazard to self, employees, or patients.
- Documentation of required immunizations.
- A negative PPD skin test must be obtained. If a positive reaction is obtained, or has previously been obtained, a chest x-ray must be taken unless medically contraindicated.

**BACKGROUND CHECK**
All students participating in clinical assignments are required by acute care hospitals to complete a background check and be cleared by the clinical facility in order to participate in the clinical experience.

**DRUG SCREEN**
All students participating in clinical assignments will be required to pass a drug screen. See Policy for Denial of Licensure below.

**BASIC LIFE SUPPORT (BLS) CERTIFICATION**
The ADN program will offer a Health Care Provider BLS class from the American Heart Association for all accepted applicants.

**WRITTEN AND SKILLS PROFICIENCY TESTING**
In selected cases, both written and skills proficiency testing may be required.

**SCHOLASTIC REQUIREMENTS**
Continuation in the LVN to ADN Advanced Placement Pathway is dependent upon completion of all courses with a C grade or better. If a student receives less than a C in any required course, that course must be repeated with a C or better in order to qualify for the National Council Licensure Examination (NCLEX-RN).

**POLICY FOR DENIAL OF LICENSURE**
The California Board of Registered Nursing protects the public by screening applicants for licensure in order to identify potentially unsafe practitioners. Statutory authority for denial of licensure is contained in the Business and Professions Code. Any student considering a career in nursing who has a criminal record is advised to go to the BRN website at www.rn.ca.gov and search Enforcement and then License Discipline and Convictions prior to applying to the ADN Program.

- Criminal Record Per the Board of Registered Nursing, pre-nursing students with a criminal record should attempt to have convictions expunged prior to applying for entrance into the nursing program. A criminal record may prevent students from clinical placement and therefore, continuing in a nursing program.

**ADVANCED PLACEMENT PATHWAY ADVISORY**
* Students are strongly advised to complete the MIC GE Graduation Requirements (Activities – 2 units, Guidance 0.5 unit, and Humanities (3 units)) prior to entering the LVN to ADN Advanced Placement Pathway. These courses must be completed by the end of the 4th semester of the Program with a grade of C or better in order to complete the LVN to ADN Advanced Placement Pathway and be eligible to take the NCLEX-RN exam. To graduate from the MIC ADN program, a student must: 1) complete all LVN TO ADN Advanced Placement Pathway requirements; 2) complete the 4th semester of the MIC ADN program; 3) complete 12 units “in residence” at MJC; and 4) complete the MIC GE Graduation Requirements.
*The Health Education requirement has been waived for all Allied Health certificates and degrees.

**PROGRAM LEARNING OUTCOMES**
In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate’s Degree in Nursing will be able to:

1. Provide competent nursing care based on scientific principles, the Ray Adaptation Model, and the nursing process, reflecting an ethic of caring evidenced by respect for patients and families, self, colleagues, and the profession.
2. Identify a nursing diagnosis following assessment of the patient’s physical condition and behavior, an analysis of information obtained from the patient and others, including members of the health care team.
3. Formulate a care plan, in collaboration with the patient that ensures direct and indirect nursing care services that provide for the following patient needs: safety, comfort, hygiene, protection, disease prevention, and restorative measures.
4. As provider and manager of care, establish priorities, perform the skills required to carry out nursing interventions, explain the plan of care to the patient and family, and teach the patient and family how to care for identified health problems and needs.
5. Manage and prioritize care for groups of patients; delegate tasks to subordinates based on the legal scope of practice of the subordinates and on the preparation and competence needed for the tasks to be delegated; and effectively supervise the nursing care provided by subordinates.
6. Evaluate the effectiveness of the care plan through observation of the patient’s condition and behavior, signs and symptoms of illness, reactions to treatment, and thorough communication with the patient and the health care team; and modify the plan as needed.
7. Advocate for the rights of patients by initiating actions to improve health care, facilitate changes in decisions or activities that conflict with patients’ self-determination, and provide patients the opportunity to make informed decisions about their health care.
8. Recognize that each person is a unique individual with biological, psychological, social, and spiritual needs; understand how a person’s self-concept, role function, and interdependence are affected by the values, attitudes, life experiences, culture, ethnicity, and support systems of each person.
A.S. DEGREE NURSING: LVN TO ADN (RN) ADVANCED PLACEMENT PATHWAY

PREREQUISITES

NURSE 259 LVN Transition: Role Change Preparation .............................................. 2
Must be a licensed vocational nurse with IV certification in California and submit a copy of the current license.

NOTE: An applicant who became an LVN by challenging the LVN Board must complete 30 college units in the nursing major and have a total of 60 college units in order to receive an A.S. Degree. Contact Allied Health for advising regarding this issue at (209) 575-6362.

ANAT 125 Human Anatomy ........................................................................................................ 5
MICRO 101 Microbiology ............................................................................................................ 4
PHYSIO 101 Introductory Human Physiology .............................................................................. 5
ENGL 101 Composition and Reading ........................................................................................... 3 AND
PSYCH 101 General Psychology .................................................................................................. 3

COMPLETE ONE COURSE FROM THE FOLLOWING:

ANTHR 102 Cultural Anthropology ........................................................................................... 3 OR
SOCIO 101 Introduction to Sociology .......................................................................................... 3 OR
SOCIO 102 Social Problems in the United States .......................................................................... 3 OR
SOCIO 125 Sociology of the Family ............................................................................................... 3 OR
SOCIO 150 Ethnicity and Culture in America ............................................................................... 3 OR
SOCIO 154 African-American Cultures and ................................................................................ 3 OR
SOCIO 156 Mexican Culture in the United States ....................................................................... 3 OR

COMPLETE ONE COURSE FROM THE FOLLOWING:

COMM 100 Fundamentals of Public Speaking ............................................................................. 3 OR
COMM 102 Introduction to Human Communication ..................................................................... 3 OR
COMM 106 Group & Organizational Communication ............................................................... 3 OR
COMM 110 Persuasion .................................................................................................................... 3 OR

TOTAL ADVANCED PLACEMENT PATHWAY PREREQUISITE UNITS .................................. 28

A.S. DEGREE NURSING: LVN TO ADN (RN) ADVANCED PLACEMENT PATHWAY

REQUIREMENTS

[FIRST SEMESTER]

NURSE 265 Nursing Process: Medical-Surgical ........................................................................... 6
NURSE 266 Nursing Process: Mental Health .................................................................................. 4

[SECOND SEMESTER]

NURSE 267 Nursing Process: Advanced Medical-Surgical ....................................................... 11

TOTAL UNITS IN A.S. DEGREE NURSING: LVN TO ADN (RN) ADVANCED PLACEMENT PATHWAY .......................................................... 21

TOTAL UNITS WITH PREREQUISITE COURSEWORK FOR A.S. DEGREE NURSING:
LVN TO ADN (RN) ADVANCED PLACEMENT PATHWAY ........................................... 49

A.S. DEGREE NURSING: LVN TO ADN (RN) ADVANCED PLACEMENT PATHWAY

To earn an associate in Science Degree in Nursing the student must complete the requirements detailed in the Career Technical Pathway (p. 191) or the University Preparation Pathway (p. 97) in addition to the Nursing/LVN to ADN Advanced Placement Pathway coursework. Consult with an advisor for selection of courses. (5.5 units)

MINIMUM UNITS IN A.S. DEGREE NURSING: LVN TO ADN (RN) ADVANCED PLACEMENT PATHWAY ................................................................. 54.5

NURSING: LVN 30 UNIT OPTION (LVN TO RN)

In addition to the LVN to ADN Advanced Placement Pathway, there is also a LVN 30 Unit Option which prepares students to take the NCLEX-RN examination, but does not award an A.S. degree. Students interested in this option should contact the Director of Nursing in Allied Health for information and advising.

The Nurse Assistant Program at Modesto Junior College is a one-semester course (NURSE 40, 5 units) that includes 50 Hours of classroom instruction and 100 Hours of supervised clinical experience with the guidelines set by the State Department of Health Services. NURSE 40 is offered in the fall and spring semesters. After completing Nurse 40 with a C or better, students are eligible to take the certification examination to become a certified nurse assistant (CNA). The exam has been developed to meet the evaluation requirements of federal and state nurse aid and competency evaluation legislation. Red Cross testing is available at MJC at the end of each class.

Program expenses vary for each individual. The estimated cost for the Nurse Assistant Program is $650 that includes books, enrollment, health clearance, and certification examination and application fees. For financial aid information, call (209) 575-7700. If you have questions about program information, contact Allied Health, 575-6362 or visit the Allied Health website at www.mjc.edu/alliedhealth and search Nurse Assistant Program.

Eligibility and Preparation

FOR THE NURSE ASSISTANT PROGRAM

• Admission to Modesto Junior College
• High School Graduation or Equivalent (GED or College Degree)

Although high school graduation is not required, it is recommended for success.

RECOMMENDED COMPETENCY The following competency is recommended for success in the Nurse Assistant Program.

READ 184 (NP) Critical Reading (C or better) .............................................................................. 5 OR
Reading competency (85) on Accuplacer ...................................................................................... OR
Completion of a college degree from an accredited United States college.

Program Prerequisites

[None required]

Program Application

[None required]

Skills Recognition: Nurse Assistant

Upon satisfactory completion of this award, the student should be prepared to:

1. Provide competent resident care based on the skill set of a certified nurse assistant (CNA).
2. Complete the required Hours for theory and clinical as set by the state of California.
3. Provide compassionate end of life care.
4. Communicate professionally with residents, families, peers and profession staff.
5. Pass the state of California certification examination as a Certified Nurse Assistant (CNA).

**REQUIRED CURRICULUM**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURSE 40 Nurse Assistant</td>
<td>5</td>
</tr>
<tr>
<td>NURSE 800 Nursing Skills Development</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL UNITS FOR SKILLS RECOGNITION AWARD</strong></td>
<td>5</td>
</tr>
</tbody>
</table>

**ADDITIONAL REQUIREMENTS FOR STUDENTS ENROLLED IN NURSE 40**

*Please Note:* In order to complete the health clearance process in a timely manner, students who are enrolled in NURSE 40 should contact the Allied Health office and pick up a health clearance packet. It is expected that enrolled students will have already begun the health clearance process by the first day of class.

**HEALTH CLEARANCE**

- A medical history and physical examination completed by a physician, physician’s assistant, or nurse practitioner within 3 months prior to program start date. The physical must state that the applicant does not have any health conditions that would create a hazard to self, employees, or patients.
- Documentation of required immunizations.
- A negative PPD skin test must be obtained. If a positive reaction is obtained, or has previously been obtained, a chest x-ray must be taken unless medically contraindicated.

**FINGERPRINTING AND BACKGROUND CHECK**

- All students participating in clinical assignments are required to complete a background check and fingerprinting, and be cleared by the clinical facility in order to participate in the clinical experience. The students will not be charged for this requirement.

**NURSE ASSISTANT CERTIFICATION APPLICATION (HS-283B)**

- Nurse 40 students will receive required forms and instructions on completing the Department of Health Services application process on the first day of class.

**POLICY FOR DENIAL OF CERTIFICATION**

Individuals who have been convicted of certain penal code violations will not be certified unless the individual submits written evidence obtained from the court of “rehabilitation” (if a felony) or a dismissal of the violation (if a misdemeanor). If you have been convicted of one of these crimes, you should be aware that you cannot be certified unless you meet the specified conditions of rehabilitation or dismissal issued by the courts and have received approval from the Department of Health Services. All other convictions not listed, except minor traffc violations, are subject to department review and require that you submit additional information.

**TO REQUEST CLEARANCE FOR PRIOR CONVICTION(S) OR DISCIPLINARY ACTION, CONTACT:**

Department of Health Services
Licensing and Certification
ATCS MS 3201
PO Box 997416
Sacramento, CA 95899-7416
(916) 327-2445
www.dhs.ca.gov/lnc

**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 53 — CERTIFIED HOME HEALTH AIDE**

**2 UNITS**

27.00 Lecture Hours, 27.00 Lab Hours

- Theory and laboratory experiences required for state-certified nursing assistants to become eligible for home health aide certification. Content includes: orientation to home health care, personal care of clients including medical and social needs; nutrition, safety and cleanliness in the home. Field trips are not required. (A-F Only)

**NURSE 115 — INTRODUCTION FOR NURSING MAJORS**

**0.5 UNITS**

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)

**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 0.5 UNITS
27 Lab Hours
Prerequisite: Satisfactory completion of NURSE 260 and NURSE 261.
Corequisite: Concurrent enrollment in NURSK 800.

Limitations on Enrollment: Enrollment limited to.

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. Field trips are not required. (P/NP Only) 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 4.5 UNITS
45 Lecture Hours, 108 Lab Hours
Prerequisite: Satisfactory completion of NURSE 261 and NURSE 262.

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

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 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 266—NURSING PROCESS: MENTAL HEALTH 4 UNITS
54 Lecture Hours, 54 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 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: ADV. 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.

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

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. Field trips are not required. (A-F Only) Transfer: (CSU)
NURSK 800—NURSING SKILLS DEVELOPMENT 0 UNITS
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. Unlimited repeats. (Non-Graded course) Lab.

NURWE 361—WORK EXPERIENCE-NURSING 1 UNIT
54.00 Lab Hours
Prerequisite: Satisfactory completion of NURSE 260 and NURSE 261.
Corequisite: Concurrent enrollment in NURSE 262 or NURSE 263 or NURSE 264 or NURSE 265 or NURSE 266 or NURSE 267.
Provides the student enrolled in the ADN program an opportunity to obtain nursing experience in a structured clinical work/study/community service program in participating clinical agencies. Students gain additional practice in nursing by applying previously learned knowledge and skills. Orientation: 1 hour arranged. 75 hours compensated related work experience per semester equals 1 unit or 60 hours uncompensated related work experience. Field trips are not required. (P/NP Only)

NURWE 362—WORK EXPERIENCE-NURSING 2 UNITS
108.00 Lab Hours
Prerequisite: Satisfactory completion of NURSE 260 and NURSE 261.
Corequisite: Concurrent enrollment in NURSE 262 or NURSE 263 or NURSE 264 or NURSE 265 or NURSE 266 or NURSE 267.
Provides the student enrolled in the ADN program an opportunity to obtain additional nursing experience in a structured clinical work/study/community service program in a participating clinical agency. Students gain additional practice in nursing by applying previously learned knowledge and skills. Orientation: 1 hour arranged. 150 hours compensated related work experience per semester equals 2 units or 120 hours uncompensated related work experience per semester equals 2 units. Field trips are not required. (P/NP Only)

Office Administration PROGRAM

The Office Administration A.S. Degree/Certificate Program is designed to prepare students for occupations in the office administration field. Some career possibilities are administrative assistant, executive secretary, office manager, office supervisor, and transcriptionist. Office administration involves the study of office procedures, duties, and practices applicable to many business offices, as well as the development and acquisition of skills necessary for success in these positions. Students learn keyboarding, word processing, records management, human relations, business communication, and math. Word processing, letter composition, and office administration procedures are emphasized to prepare students for the assumption of responsible positions.

A.S. DEGREE: OFFICE ADMINISTRATION

The Office Administration A.S. Degree Program is designed to prepare students for occupations in the office administration field. Some career possibilities are administrative assistant, executive secretary, office supervisor, and office manager. Office administration involves the study of office procedures, duties, and practices applicable to many business offices, as well as the development and acquisition of skills necessary for success in these positions. Students learn keyboarding, word processing, human relations, business communication, and entry-level bookkeeping. Word processing, letter composition, and office procedures are emphasized to prepare students for the assumption of responsible positions.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment.
2. Competently communicate in support of a business office, including production and design of complex electronic and paper-based correspondence and documents.
3. Demonstrate the ability to competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines.
4. Actively assist in implementing general office procedures, including records management.
5. Use the Internet, a wide variety of computer applications, and standard business procedures to compute, analyze business performance, and solve problems.
6. Efficiently perform office-related duties utilizing prioritization and necessary communication skills.

PROGRAM REQUIREMENTS

To earn an associate in science degree, the student must complete the requirements detailed in the Career Technical Educational Pathway or the University Preparation Pathway which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 27.5 UNITS

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>OFADM 302</td>
<td>[1] Intermediate Keyboarding 2</td>
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<tr>
<td>OFADM 303</td>
<td>[1] Keyboarding for Speed and Accuracy</td>
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<tr>
<td>OFADM 304</td>
<td>[2] Professional English for Business</td>
<td>3</td>
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<tr>
<td>OFADM 320</td>
<td>[1] Telephone Techniques</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 359</td>
<td>[1] Introduction to Spreadsheet Software</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 361</td>
<td>[1] Introduction to Databases</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 362</td>
<td>[1] Introduction to Business Presentation Software</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 375</td>
<td>[3] 10-Key on the Computer</td>
<td>1</td>
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<tr>
<td>BUSAD 310</td>
<td>[2] Bookkeeping 1</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS IN A.S. MAJOR ............................................................... 27.5
CERTIFICATE OF ACHIEVEMENT: OFFICE ADMINISTRATION

The Office Administration A.S. Degree/Certificate Program is designed to prepare students for occupations in the office administration field. Some career possibilities are administrative assistant, executive secretary, office manager, office supervisor, and transcriptionist. Office administration involves the study of office procedures, duties, and practices applicable to many business offices, as well as the development and acquisition of skills necessary for success in these positions. Students learn keyboarding, word processing, records management, human relations, business communication, and math. Word processing, letter composition, and office administration procedures are emphasized to prepare students for the assumption of responsible positions.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Productively work as a team member with people of diverse experiences and backgrounds.
2. In a workplace environment.
3. Competently communicate in support of a business office, including production and design of complex electronic and paper based correspondence and documents.
4. Actively assist in implementing general office procedures, including records management.
5. Use the Internet, a wide variety of computer applications and standard business procedures to compute, analyze business performance and solve problems.
6. Efficiently perform office-related duties utilizing prioritization and necessary communication skills.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES - COMPLETE 32 UNITS

OFADM 202 [1] Intermediate Keyboarding 2 2 UNITS
OFADM 231 [1] Intermediate Word Processing 3 UNITS
OFADM 311 [1] Business Proofreading and Editing 3 UNITS
OFADM 314 [1] Office Procedures & Technologies 3 UNITS
OFADM 359 [1] Introduction to Spreadsheet Software 1 UNIT
OFADM 361 [2] Introduction to Databases 1 UNIT
OFADM 363 [1] Understanding the Internet 1 UNIT
OFADM 320 [1] Telephone Techniques 1 UNIT
OFADM 375 [1] 10-Key on the Computer 1 UNIT
BUSAD 50 [1] Business Computations 3 UNITS

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD 32 UNITS

Office Administration Courses (OFADM)

OFADM 201—INTERMEDIATE KEYBOARDING 1 1 UNIT
18 Lecture Hours
Formerly listed as: OFADM - 201: Intermediate Keyboarding

OFADM 202—INTERMEDIATE KEYBOARDING 2 2 UNITS
36 Lecture Hours
Formerly listed as: OFADM - 202: Intermediate Keyboarding

OFADM 203—INTERMEDIATE KEYBOARDING 3 3 UNITS
54 Lecture Hours
Formerly listed as: OFADM - 203: Intermediate Keyboarding

OFADM 231—INTERMEDIATE WORD PROCESSING 3 UNITS
36 Lecture Hours, 54 Lab Hours
Also offered as: CSCI 224 (CMPSC 231): Intermediate Word Processing
Recommended for Success: Before enrolling in this course, students are strongly advised to possess at least one semester of keyboarding and type a minimum of 45 gross words per minute on a five-minute test.

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 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 301—BEGINNING KEYBOARDING  1.5 UNITS
9 Lecture Hours, 54 Lab Hours
Development of basic alpha/numeric keyboarding skills needed for the keyboard by touch. Drills to develop speed and accuracy on straight copy. Designed for students with no previous keyboarding/typewriting experience. (A-F Only) Lecture/Lab. Transfer: (MJC OFADM 301+OFADM 302=CC OFTEC 120)

OFADM 302—BEGINNING DOCUMENT PROCESSING  1.5 UNITS
9 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 301 or have ability to keyboard and type a minimum of 35 gross words per minute on a three-minute timing.
Further development of speed and accuracy on the alpha/numeric keyboard. Instruction in opening, saving, naming, printing documents; deletion and addition of text; margin/tab settings; spacing techniques; text editing techniques; vertical/horizontal centering; basic business letter, memo, and report formats. (A-F Only) Lecture/Lab. Transfer: (MJC OFADM 301+OFADM 302=CC OFTEC 120)

OFADM 303—KEYBOARDING FOR SPEED AND ACCURACY  0.5 UNITS
27 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 301 or possess the ability to keyboard by touch at 20 gross words per minute.
Keyboarding course designed to diagnose a student's current keyboarding skills needs, prescribe appropriate practice materials, measure skill development, improve speed and accuracy, and continually evaluate the skill building process. (A-F Only) Lab.

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 333 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 306—KEYBOARDING FOR ACCURACY  0.5 UNITS
27 Lab Hours
Prerequisite: Satisfactory completion of OFADM 303.
Keyboarding course designed to develop a student's current keyboarding skill, prescribe appropriate practice materials, measure skill development, improve accuracy, and continually evaluate the skill building process. Field trips are not required. (A-F Only)

OFADM 307—KEYBOARDING FOR SPEED  0.5 UNITS
27 Lab Hours
Prerequisite: Satisfactory completion of OFADM 303.
Keyboarding course designed to develop a student's current keyboarding skill, prescribe appropriate practice materials, measure skill development, improve speed, and continually evaluate the skill building process. Field trips are not required. (A-F)

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 have the ability to keyboard by touch.

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 333 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.

Office Computer Applications Program

Certificate of Achievement: Office Computer Applications

Program Learning Outcomes

Upon satisfactory completion of this award, the student should be prepared to:

1. Use the Internet, a wide variety of computer applications and standard business procedures to compute, analyze business performance and solve problems.
2. Demonstrate the ability to competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

Required Courses - Complete 17 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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<tbody>
<tr>
<td>OFADM 301</td>
<td>Beginning Keyboarding</td>
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<tr>
<td>OFADM 302</td>
<td>Beginning Document Processing</td>
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<tr>
<td>OFADM 202</td>
<td>Intermediate Keyboarding 2</td>
<td>2</td>
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<tr>
<td>OFADM 330</td>
<td>Beginning Word Processing</td>
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<tr>
<td>OFADM 231</td>
<td>Intermediate Word Processing</td>
<td>3</td>
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<tr>
<td>CSCI 223</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 361</td>
<td>Introduction to Databases</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 362</td>
<td>Introduction to Business Presentation Software</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 353</td>
<td>Introduction to Computers and Windows</td>
<td>1</td>
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</tbody>
</table>

Minimum Units for Certificate of Achievement Award: 17

Office Support Program

The Office Support Certificate of Achievement is designed for students desiring to meet entry level qualifications for office support positions which require keyboarding, telephone techniques, business document formatting, document organization, time management, word processing skills, Internet and e-mail protocol, and spreadsheet design.

Certificate of Achievement: Office Support

The Office Support Certificate of Achievement is designed for students desiring to meet entry level qualifications for office support positions which require keyboarding, telephone techniques, business document formatting, document organization, time management, word processing skills, Internet and e-mail protocol, and spreadsheet design.

Pharmacy Technician

Contact MJC Community Education at (209) 575-6063

Philosophy Courses (PHILO)

PHILO 101—Philosophy

3 Units

54 Lecture Hours

A careful and critical examination of some of the “Great Questions” philosophers have pursued from ancient times to the present. 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)(CID-PHIL 100) General Education: (MJC-GE: C)(CSU-GE: A3)

PHILO 103—Symbolic Logic

3 Units

54 Lecture Hours

Also offered as CSCI 203 (CMPSC 103)

An introduction to modern deductive logic; includes sentential and predicate logic with identity theory and definite descriptions. Lecture. Transfer: (CSU, UC)(CC PHILO 210)(CC PHIL 201) 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. Field trips are not required. (A-F or P/NP) 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)(CID-PHIL 120) General Education: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B)

PHILO 113 — PHILOSOPHY OF ART 3 UNITS
54 Lecture Hours
An examination of the central features of art as well as alternative accounts of art and aesthetic experience including discussions of beauty, representation, and truth. Field trips 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 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)(CID-PHIL 130) General Education: (MJC-GE: C)(CSU-GE: C2)(IGETC: 3B)

PHILO 121 — HISTORY OF PHILOSOPHY: MODERN 3 UNITS
54 Lecture Hours
Western ideas and 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 or P/NP) Lecture Transfer: (CSU, UC)(CID-PHIL 140) General Education: (MJC-GE: C)(CSU-GE: C2)(IGETC: 3B)

PHILO 123 — TWENTIETH CENTURY PHILOSOPHY 3 UNITS
54 Lecture Hours

PHILO 130 — POLITICAL THEORY 3 UNITS
54 Lecture Hours
An introduction to the philosophical problems and reasoning’s through an analysis of films. Topics discussed include philosophy of life and existence, political ideologies, the nature of aesthetic experience, and theories of film. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (CSU-GE: B8) (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)(CC PHILO 35) General Education: (MJC-GE:C)(CSU-GE:C2)(IGETC: 3B)

PHILO 140 — PHOTOGRAPHY 3 UNITS
54 Lecture Hours
Prerequisite: Satisfactory completion of ENGL 101.
Photography is both an artistic and a technical vocation. This program is designed to develop the student’s aesthetic and technical abilities by working with design, composition, lighting, various types of image content, photographic processes, image critique, and presentation techniques.

Contact MJC Community Education at (209) 575-6063
PROGRAM LEARNING OUTCOMES
Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate preparedness to successfully continue studies in art at an upper division level.
2. Represent and interpret aspects of their physical and social environment within a variety of photography-related media.
3. Plan, design, and product original works of art.
4. Make informed assessments of quality and effectiveness in works of art, including their own.
5. Identify and distinguish various historical periods of photography-related art.

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below. Courses should be selected with the assistance of a Photography faculty advisor. Students who plan to transfer to a four-year college or university should consult with a Photography faculty advisor. Students who should be selected with the assistance of a Photography faculty advisor to ensure that all required transfer courses are completed.

REQUIRED COURSES - COMPLETE 18 UNITS

ART 124 (2) Color and Design 1 .................................................3
ART 168 (1) Survey of Photography ............................................3
ART 170 (1) Basic Photography ..................................................3
ART 172 (2) Intermediate Photography ......................................3
ART 173 (3) Digital Photography ................................................3
ART 175 (3) Color Photography ..................................................3

ELECTIVE COURSES - COMPLETE AT LEAST 2 UNITS

ART 160 (1) Appreciation of Art ................................................3
ART 163 (NP) History of Modern Art .........................................3
ART 164 (NP) History of Art 1 ...................................................3
ART 165 (NP) History of Art 2 ...................................................3
ART 1788 (3) Advanced Photography ........................................2

MINIMUM UNITS IN A.A. MAJOR ..................................................20

PROGRAM REQUIREMENTS
To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 15 UNITS

PE 100 (1) Introduction to Physical Education ................................3
PE 108 (2,3) Care and Prevention of Athletic Injuries ..................3
PE 109 (2,3,4) Peak Performance Through Mental Training ..........3
PE 110 (1,3) Officiating; Spring Sports .......................................3 OR
PE 115 (2,4) Officiating; Fall Sports ...........................................3
HE 101 (NP) Emergency Medical Response; CPR Pro/Healthcare Provider ..................................................3

ELECTIVE COURSES - COMPLETE 5 UNITS, WHICH MUST INCLUDE 1-5 UNITS OF ACTIVITY CLASSES FROM THE LIST PROVIDED

PE 101 (1,3) Basketball Theory ..................................................1
PE 102 (1,3) Offensive Football Theory .......................................2
PE 103 (2,4) Track and Field Theory ..........................................1
PE 104 (1,3) Wrestling Theory ...................................................1
PE 105 (1,3) Defensive Football Theory .....................................2
PE 106 (1,3) Offensive Baseball Theory ......................................2
PE 107 (2,4) Defensive Baseball Theory .....................................2
PE 111 (3,4) Application of Sports Medicine ..............................3
PE 110 (1,3) Officiating; Spring Sports .......................................3
PE 112 (2,4) Offensive/Defensive Softball Theory ......................2
PE 114 (1,3) Cross Country Concepts ........................................1
PE 115 (2,4) Officiating; Fall Sports ..........................................3
PE 116 (1,3) Football Team Play Concepts .................................2
PE 120 (2,4) Sports and Society ...............................................3
PE 121 (1,3) Coaching Effectiveness ..........................................3

PE ACTIVITY CLASSES

PEA 104 (NP) Adapted Strength Development ............................1
PEA 106 (NP) Functional Water Exercise ...................................1
PEA 107 (NP) Adapted Swimming ............................................1
PEA 108 (NP) Adapted Aquatics ................................................1
PEA 119 (NP) Adapted Sports ...................................................1
PEC 102 (NP) Water Aerobics ..................................................1
PEC 108 (NP) Deep Water Aerobics ........................................1
PEC 111 (NP) Beginning Racquetball .......................................1
PEC 112 (NP) Intermediate Racquetball .................................1
PEC 118 (NP) Bowling .............................................................1
PEC 120 (NP) Hip Hop .............................................................1
PEC 122 (NP) Modern Dance 1 ................................................1
PEC 123 (NP) Modern Dance 2 ................................................1
PEC 124 (NP) Modern Dance 3 ................................................1
PEC 126 (NP) Jazz 1 ...............................................................1
PEC 128 (NP) Aerobics ............................................................1
PEC 127 (NP) Ballet 2 .............................................................1
PEC 129 (NP) Jazz 2 ...............................................................1
PEC 132 (NP) Jazz 3 Intermediate/Advanced ............................1
PEC 139 (NP) Ballet 3 .............................................................1
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<td>PEC 140</td>
<td>Exercise for Fitness</td>
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<td>Gymnastics</td>
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<tr>
<td>PEC 148</td>
<td>Yoga for Better Health</td>
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<tr>
<td>PEC 150</td>
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<td>PEC 157</td>
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<td>PEC 159</td>
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<td>PEC 160</td>
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<td>PEC 162</td>
<td>Aikido 1 Basic</td>
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<td>PEC 163</td>
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<tr>
<td>PEC 164</td>
<td>Self-Defense</td>
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<td>PEC 165</td>
<td>Judo</td>
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<td>PEC 168</td>
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<td>PEC 169</td>
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<td>PEC 170</td>
<td>Advanced Swimming</td>
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<tr>
<td>PEC 171</td>
<td>Swim for Fitness</td>
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<td>PEC 172</td>
<td>Lifeguard Training</td>
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<td>PEC 175</td>
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<tr>
<td>PEC 176</td>
<td>Intermediate Tennis</td>
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<tr>
<td>PEC 177</td>
<td>Advanced Tennis</td>
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<td>Tournament Tennis</td>
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<td>Track and Field</td>
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<td>Training for Distance Running</td>
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<td>Power Volleyball</td>
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<td>Power Lifting</td>
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<td>Advanced Basketball</td>
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<td>Touch Football and Kanaki</td>
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<td>PEM 162</td>
<td>Soccer</td>
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<td>PEM 196</td>
<td>Advanced Wrestling</td>
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<td>PEW 164</td>
<td>Women's Indoor-Outdoor Soccer</td>
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<td>PEW 167</td>
<td>Women's Beginning Judo</td>
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<td>PEW 180</td>
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<td>PEW 192</td>
<td>Women's Weight Training</td>
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<td>PPEV 110</td>
<td>Men's Varsity Cross-Country</td>
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<td>PPEV 115</td>
<td>Men's Varsity Football</td>
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</tr>
<tr>
<td>PPEV 120</td>
<td>Men's Varsity Golf</td>
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<tr>
<td>PPEV 122</td>
<td>Men's Varsity Soccer</td>
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<tr>
<td>PPEV 125</td>
<td>Men's Varsity Swimming and Diving</td>
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<tr>
<td>PPEV 130</td>
<td>Men's Varsity Tennis</td>
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<td>PPEV 135</td>
<td>Men's Varsity Track-Field</td>
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<td>PPEV 140</td>
<td>Men's Varsity Water Polo</td>
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<td>PPEV 145</td>
<td>Men's Varsity Wrestling</td>
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<td>Women's Varsity Basketball (Spring)</td>
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<td>PPEV 160</td>
<td>Women's Varsity Cross-Country</td>
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<td>PPEV 165</td>
<td>Women's Varsity Golf</td>
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<td>PPEV 180</td>
<td>Women's Varsity Swimming and Diving</td>
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<td>PPEV 185</td>
<td>Men's Varsity Track-Field</td>
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<tr>
<td>PPEV 190</td>
<td>Men's Varsity Baseball</td>
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</tbody>
</table>

**TOTAL UNITS IN A.A. MAJOR** ............................................................... 20

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### Physical Education Courses (PE, PEA, PEC, PEM, PEVM, PEW)

The Physical Education program at MJC offers a balanced approach based on the individual interests and needs of the student. In addition to a wide spectrum of physical education activity classes, MJC offers intramural competition in many sports and adaptive physical education courses. The 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, 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)

**PE 101—BASKETBALL THEORY** 1 UNIT

*9 Lecture Hours, 27 Lab Hours*

Basketball rules, mastery of position and team play. Development of strategies and philosophy. (A-F Only) Lecture/Lab. Transfer: (CSU, UC)

**PE 102—OFFENSIVE FOOTBALL THEORY** 2 UNITS

*18 Lecture Hours, 54 Lab Hours*

An analysis of offensive position and team play. Critical analysis of offensive techniques, rules, physical and mental training procedures, and film evaluation. A-F or P/NP Lecture/ Lab. Transfer: (CSU, UC)

**PE 103—TRACK AND FIELD TEAM CONCEPTS** 1 UNIT

*18 Lecture Hours*

Specialized approach to track and field. Rules, training procedures, strategy, and performance evaluation. (A-F or P/NP) Lecture. Transfer: (CSU, UC)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
<th>Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 104 —— WRESTLING THEORY</td>
<td>1 UNIT</td>
<td>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)</td>
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<tr>
<td>PE 105 —— DEFENSIVE FOOTBALL THEORY</td>
<td>2 UNITS</td>
<td>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)</td>
<td></td>
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</tr>
<tr>
<td>PE 106 —— OFFENSIVE BASEBALL THEORY</td>
<td>2 UNITS</td>
<td>An analysis of offensive techniques, position and team play. Coverage of rules and training procedures. (A-F or P/NP) Lecture. Transfer: (CSU, UC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE 107 —— DEFENSIVE BASEBALL THEORY</td>
<td>2 UNITS</td>
<td>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)</td>
<td></td>
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<tr>
<td>PE 108 —— CARE AND PREVENTION OF ATHLETIC INJURIES</td>
<td>3 UNITS</td>
<td>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)</td>
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<tr>
<td>PE 109 —— PEAK PERFORMANCE THROUGH MENTAL TRAINING</td>
<td>3 UNITS</td>
<td>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)</td>
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<tr>
<td>PE 110 —— OFFICIATING: SPRING SPORTS</td>
<td>3 UNITS</td>
<td>Regulations and techniques of officiating baseball and softball. (A-F or P/NP) Lecture. Transfer: (CSU, UC)</td>
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<tr>
<td>PE 111 —— APPLICATION OF SPORTS MEDICINE</td>
<td>3 UNITS</td>
<td>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)</td>
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</tr>
<tr>
<td>PE 112 —— CROSS COUNTRY CONCEPTS</td>
<td>1 UNIT</td>
<td>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)</td>
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<td></td>
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<tr>
<td>PE 113 —— OFFENSIVE/DEFENSIVE SOFTBALL THEORY</td>
<td>2 UNITS</td>
<td>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)</td>
<td></td>
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<tr>
<td>PE 114 —— CROSS COUNTRY CONCEPTS</td>
<td>1 UNIT</td>
<td>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)</td>
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<tr>
<td>PE 115 —— OFFICIATING: FALL SPORTS</td>
<td>3 UNITS</td>
<td>Regulations and techniques of officiating football and basketball. (A-F or P/NP) Lecture. Transfer: (CSU, UC)</td>
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<tr>
<td>PE 116 —— FOOTBALL TEAM PLAY CONCEPTS</td>
<td>2 UNITS</td>
<td>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)</td>
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<tr>
<td>PE 117 —— COUNTRY PERFORMANCE</td>
<td>3 UNITS</td>
<td>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)</td>
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<tr>
<td>PE 118 —— INTRODUCTION TO KINESIOLOGY</td>
<td>3 UNITS</td>
<td>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) (CID-KIN 100) General Education: (MJC-GE: A)</td>
<td></td>
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</tr>
<tr>
<td>PE 119 —— PERSONAL TRAINER HEALTH FITNESS INSTRUCTOR</td>
<td>3 UNITS</td>
<td>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.</td>
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</tbody>
</table>
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)

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<th>Hours</th>
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<td>PE 141</td>
<td>SUPERVISION IN ATHLETIC TRAINING</td>
<td>2</td>
<td>18 Lecture, 54 Lab</td>
<td>Satisfactory completion of PE 108</td>
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<td>SUPERVISION IN ATHLETIC TRAINING 2</td>
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<td>PE 143</td>
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<td>18 Lecture, 54 Lab</td>
<td>Satisfactory completion of PE 142</td>
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<td>PE 144</td>
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<td>Satisfactory completion of PE 143</td>
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<tr>
<td>PE 145</td>
<td>INTRODUCTION TO WORLD DANCE</td>
<td>3</td>
<td>54 Lecture</td>
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<td>(MJC: Activities)</td>
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</table>

Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of physical or learning disability or motor problems.

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. Graduation: (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. Graduation: (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)

PEA 109—ADAPTED RUN/WALK 1 UNIT 54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of physical or learning disability.

Personalized and group exercises that include development of an overall fitness routine involving conditioning for walking and/or running: balance, gait, functional motor control, developmental movement, strength and endurance. Emphasis on encouraging independence and teaching lifelong fitness knowledge and skills. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC)

PEA 110—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)
PEA 141 — ADAPTED FITNESS
54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to seek health care advice from a medical specialist.

A specialized course in physical exercise which includes individual and group exercises that include development of an overall fitness routine involving all aspects of body conditioning: balance, flexibility, functional motor control, developmental movement, strength and endurance. There will be an emphasis on encouraging independence and teaching lifelong fitness knowledge and skills. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MIC: Activities)

PEC 102 — WATER AEROBICS
1 UNIT
54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to seek physician(s)’ recommendations on exercise limitations and advisories.

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: (MIC: 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: (MIC: 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. Transfer: (CSU, UC) Graduation: (MIC: Activities)

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. Graduation: (MIC: Activities) Transfer: (CSU, UC) Graduation: (MIC: Activities)

PEC 120 — HIP HOP
1 UNIT
54 Lab Hours
Also offered as: THETR 170

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) Graduation: (MIC: Activities)

PEC 122 — MODERN DANCE 1
1 UNIT
54 Lab Hours
Also offered as: THETR 185
Formerly listed as: THETR 185B 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. Graduation: (MIC: 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 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: (MIC: 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 PEC 123.

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

PEC 126 — JAZZ 1
1 UNIT
54 Lab Hours
Also offered as: THETR 188
Formerly listed as: THETR 188A: Intermediate Jazz Dance

Beginning Technique of Jazz Dance with explorations into contemporary derivations of jazz. Emphasis on technical style of this form, and to the interrelationships of music and movement. Field trips are not required. (A-F or P/NP) Lab. Transfer: (CSU, UC) Graduation: (MIC: Activities)

PEC 127 — BALLET 2
1 UNIT
54 Lab Hours
Also offered as: THETR 177
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: (MIC: Activities)
PEC 128——AEROBICS  1 UNIT
54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to be able to move and breathe with reasonable ease and with limited risk for incurring injury.


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. Graduation: (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
54 Lab Hours

Also offered as: THETR 130

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
54 Lab Hours

Also offered 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) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 135——SPRINGBOARD DIVING  1 UNIT
54 Lab Hours

Springboard diving course for students of all ability levels. Workouts will include stretching, strength development, flexibility and coordination exercises, techniques of the approach, hurdle, press, takeoff, flight and entry. Mid-air maneuvers will be identified and practiced on one meter and three meter diving boards as skill levels increase. Basic water safety and related safety issues will be included. Four completions allowed. (A-F or P/NP) Lab. Graduation: (MJC: Activities) Transfer: (CSU, UC)

PEC 139——BALLET 3  1 UNIT
54 Lab Hours

Also offered as: THETR 117

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, UC) Graduation: (MJC: Activities)

PEC 140——EXERCISE FOR FITNESS  1 UNIT
54 Lab Hours

Cardiovascular improvement and respiratory efficiency through a variety of physical activities consisting of continuous motion exercises. (A-F or P/NP) Lab. Transfer: (CSU, UC)

PEC 142——EXERCISE FOR FITNESS 2  1 UNIT
54 Lab Hours

Cardiovascular improvement and respiratory efficiency through a variety of high level physical activities and sports skills. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 143——BEGINNING GOLF  1 UNIT
54 Lab Hours

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

PEC 144——Intermediate Golf  1 UNIT
54 Lab Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 143 or demonstrate basic knowledge and skills of the game.

Further application of the fundamentals and rules of golf for the improvement of game skills and knowledge. (A-F or P/NP) Lab. Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 145——ADVANCED GOLF  1 UNIT
54 Lab Hours

Formerly listed as: PEC 145A: Advanced Golf

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 144.

Acquisition and development of advanced golf skills and strategies for tournament play. Field trips are not required. Four completions allowed. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 146——BALLET 4  1 UNIT
54 Lab Hours

Also offered as: THETR 118

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 177 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, UC) Graduation: (MJC: Activities)
PEC 147 — GYMNASTICS  
54 Lab Hours  
Also offered as: PEC 147A: Gymnastics  
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)

PEC 148 — YOGA FOR BETTER HEALTH  
54 Lab Hours  
Fitness class using Yoga postures, breathing, and relaxation techniques to increase flexibility and strength, balance and coordination. Appropriate for all ages and learning abilities. (A-F or P/NP) Lab. Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 150X, A — INTERMEDIATE YOGA FOR BETTER HEALTH  
0.5, 1 UNIT  
X=4.38 Lecture Hours, 13.12 Lab Hours, A=9 Lecture Hours, 27 Lab Hours  
Recommended for Success: PEC 148 or prior experience in yoga.  
Intermediate class using yoga postures, breathing, and relaxation techniques to increase flexibility, strength, balance and coordination. Lecture/Laboratory. Graduation: (MJC: Activities) Transfer: (CSU, UC)

PEC 157 — ADVANCED JUDO  
54 Lab Hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 155 or PEC 166 or PEW 167 or demonstrate basic judo skills and competencies, along with a knowledge and understanding of judo concepts, terminology, etiquette, and methods of scoring, timekeeping, and elimination systems.  
Intermediate and advanced skills (standing, mat and falling techniques) and strategies to improve judo techniques and enhance competitiveness. (A-F or P/NP) Lab. Graduation: (MJC: Activities) Transfer: (CSU, UC)

PEC 159 — FALL SPIRIT LEADERSHIP TRAINING  
2 UNITS  
108 Lab Hours  
Formerly listed as: PEC 159A: Spirit Leadership Training  
Instruction, training, and development of a corps of spirit leaders to promote enthusiasm for school athletic activities. Field trips might be required. (A-F or P/NP) Lab. Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 160 — SPRING SPIRIT LEADERSHIP TRAINING  
54 Lab Hours  
Instruction, training and development of a corps of spirit leaders for school athletic activities for Spring sports. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 162 — AIKIDO 1 BASIC  
54 Lab Hours  
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.  
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)

PEC 163 — AIKIDO 2 INTERMEDIATE  
54 Lab Hours  
Formerly listed as: PEC 163: Aikido 2, Intermediate  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 162 or hold Kyu rank from an Aikido Dojo.  
A continuing exploration of the fundamental principles and techniques of Aikido, an ethical Japanese martial art based on non-aggressive, non-resistant, co-creative conflict resolution and internal personal growth by non-competitive means. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 164 — SELF DEFENSE  
54 Lab Hours  
A practical course in self defense. Practice of various basic techniques and principles of balance, leverage, and momentum. Discussion of how to avoid threatening situations in the home or on the street. (A-F or P/NP) Lab. Graduation: (MJC: Activities). Transfer: (CSU, UC)

PEC 165 — BEGINNING JUDO  
54 Lab Hours  
Formerly listed as: PEC 165: Judo  
Judo is a challenging martial art based on the philosophy of using maximum efficiency and maximum effort. This course is designed to teach the fundamental skills and techniques to the student as a recreational activity and/or on a competitive basis. Field trips may be required. (A-F or P/NP) Lab. Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 166XA — INTERMEDIATE JUDO  
0.5, 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. Graduation: (MJC: Activities) Transfer: (CSU, UC)

PEC 168 — BEGINNING SWIMMING  
54 Lab Hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to have the ability to enter shallow water.  
Basic skills of floating, breathing, kicking, pulling, using arms and legs. (A-F or P/NP) Lab. Graduation: (MJC: Activities) Transfer: (CSU, UC)

PEC 169 X, A — INTERMEDIATE SWIMMING  
0.5, 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). Graduation: (MJC: Activities) Transfer: (CSU, UC)

PEC 170 — ADVANCED SWIMMING  
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. Graduation: (MJC: Activities) Transfer: (CSU, UC)
PEC 171 — SWIM FOR FITNESS
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 advanced swimmers. (A-F or P/NP - Student choice) Lab. Graduation: (MJC: Activities). Transfer: (CSU, UC)

PEC 172 — LIFEGUARD TRAINING
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. Graduation: (MJC: Activities) Transfer: (CSU, UC)

PEC 175 — BEGINNING TENNIS
54 Lab Hours
Fundamental skills in tennis. (A-F or P/NP) Lab. Graduation: (MJC: Activities) Transfer: (CSU, UC)

PEC 176 — INTERMEDIATE TENNIS
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
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
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
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
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
54 Lab Hours
Fundamentals of volleyball. (A-F or P/NP) Lab. Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 184 — POWER VOLLEYBALL
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. Graduation: (MJC: Activities) Transfer: (CSU, UC)

PEC 185 — INTERMEDIATE VOLLEYBALL
54 Lab Hours
Intermediate volleyball skills, theories, offensive, and defensive strategy. (A-F or P/NP) Lab. Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 186 — PILATES FOR FITNESS
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. Graduation: (MJC: Activities) Transfer: (CSU, UC)

PEC 187 — PILATES 2
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 190X,A — ADVANCED WATER POLO
0.5, 1 UNIT
K=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) Graduation: (MJC: Activities) Transfer: (CSU, UC)

PEC 191 — POWERLIFTING
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, UC) Graduation: (MJC: Activities)

PEC 192 — PILATES 2
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  
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  
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)

PHYSICAL EDUCATION: MEN’S ACTIVITIES COURSES (PEM)

PEM 108 — BASEBALL  
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  
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 113 — INTERMEDIATE BASKETBALL  
54 Lab Hours  
Intermediate skills and theory. Basic team play concepts. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEM 114 — ADVANCED BASKETBALL  
54 Lab Hours  
Advanced skills, theory, and concepts of competitive basketball team play. Four completions allowed. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEM 140 — TOUCH FOOTBALL AND KANAKI  
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 141XA — ADVANCED TOUCH FOOTBALL  
X = 27 Lab Hours, A = 54 Lab Hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to have previously participated in high school and/or intercollegiate sports requiring strength, agility, and physical conditioning.  
Conditioning, skills, rules and strategies with emphasis on the passing game to prepare for participation in advanced football. Field trips are not required. Four completions allowed. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEM 162 — SOCCER 2  
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 3  
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. Four completions allowed. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEM 165 — SOCCER 4  
54 Lab Hours  
Practical application of collegiate offensive and defensive tactics; individual and team skills, match strategy, and application of the rules. Field trips are not required. Four completions allowed. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PHYSICAL EDUCATION: VARSITY MEN’S ACTIVITIES COURSES (PEVM)

Courses listed below offer advanced instruction and intensive training in sports fundamentals to develop teams for intercollegiate competition. A varsity activity may be taken a maximum of four times. Participation in intercollegiate sports requires concurrent enrollment in not less than 12 units of work, nine of which must be in courses counting toward the associate degree, remediation, transfer and/or certification. Special medical examinations are required for students participating in competitive sports. Verification of insurance is also required. Participation in a second sport or a second year of a sport requires a 2.0 grade point average and 24 units passed.

PEM 100 — VARSITY BASEBALL  
175 Lab Hours  
Instruction, training, and competition in intercollegiate baseball. Four completions allowed. (A-F Only) Lab. Graduation: (MJC: Activities). Transfer: (CSU, UC)

PEM 105 — MEN’S VARSITY BASKETBALL (FALL)  
175 Lab Hours  
Recommended for Success: PE 101  
Instruction, training and competition in intercollegiate basketball. Laboratory/Other. (Fall) Four completions allowed. (A-F Only) Graduation: (MJC: Activities) Transfer: (CSU, UC)

PEM 106 — MEN’S VARSITY BASKETBALL - SPRING  
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. Graduation: (MJC: Activities). Transfer: (CSU, UC)
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.

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

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

**PEVM 130—MEN’S VARSITY TENNIS** 
3 UNITS 
175 Lab Hours 
Instruction, training, and competition in intercollegiate tennis. Four completions allowed. (A-F Only) Lab. Graduation: (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. Graduation: (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. Graduation: (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. Graduation: (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. Graduation: (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. Graduation: (MJC: Activities). Transfer: (CSU, UC)

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

**PEVM 130—MEN’S VARSITY TENNIS** 
3 UNITS 
175 Lab Hours 
Instruction, training, and competition in intercollegiate tennis. Four completions allowed. (A-F Only) Lab. Graduation: (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. Graduation: (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. Graduation: (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. Graduation: (MJC: Activities). Transfer: (CSU, UC)

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

**PEVM 101—WOMEN’S VARSITY BASKETBALL - SPRING** 
1.5 UNITS 
90 Lab Hours 
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEVM 100. Continued instruction, training, and competition in intercollegiate basketball. (Spring semester). Four completions allowed. (A-F Only) Lab. Graduation: (MJC: Activities). Transfer: (CSU, UC)

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

**PEVM 115—WOMEN’S VARSITY GOLF** 
3 UNITS 
175 Lab Hours 
Instruction, practice, and competition in intercollegiate golf. Four completions allowed. (A-F Only) Lab. Graduation: (MJC: Activities). Transfer: (CSU, UC)

**PEVM 120—WOMEN’S VARSITY SOFTBALL** 
3 UNITS 
175 Lab Hours 
Instruction, training, and competition in intercollegiate softball. Four completions allowed. (A-F Only) Lab. Graduation: (MJC: Activities). Transfer: (CSU, UC)

**PEVM 123—WOMEN’S VARSITY SOCCER** 
3 UNITS 
175 Lab Hours 
Instruction, training, and competition in intercollegiate soccer. Four completions allowed. (A-F Only) Lab. Graduation: (MJC: Activities). Transfer: (CSU, UC)

**PEVM 125—WOMEN’S VARSITY SWIMMING AND DIVING** 
3 UNITS 
175 Lab Hours 
Instruction, training, and competition in intercollegiate swimming and diving. Four completions allowed. Lab. (A-F or P/NP) Graduation: (MJC: Activities). Transfer: (CSU, UC)

**PEVM 130—WOMEN’S VARSITY TENNIS** 
3 UNITS 
175 Lab Hours 
Instruction, training, and competition in intercollegiate tennis. Four completions allowed. (A-F Only) Lab. Graduation: (MJC: Activities). Transfer: (CSU, UC)

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

PROGRAM

A.S.-T DEGREE: PHYSICS

The Associate in Science in Physics for Transfer (A.S.-T in Physics) degree includes lower division coursework that is required for transfer. This program is designed to prepare students who wish to transfer to a California State University campus to complete a bachelor’s degree in physics, physics education or a related field of study. It will educate the student in applying the scientific method to collect and analyze data in forming conclusions, to verify physical principles through measurement and experimentation, to solve problems and to predict outcomes in nature using physical laws, and to state and apply physical concepts to explain phenomena encountered in our everyday world.

The Associate in Science in Physics for Transfer (A.S.-T in Physics) is intended for students who plan to complete a bachelor’s degree in Physics at a California State University campus. Students completing this degree are guaranteed admission to the CSU System, but not to a particular campus or major. Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. The Associate in Science in Physics for Transfer (A.S.-T in Physics) may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Use the Scientific Method to collect and analyze data in forming conclusions and to verify physical principles through measurement and experimentation.
2. Solve problems and predict outcomes in nature using physical laws.
3. State and apply physical concepts to explain phenomena encountered in our everyday world.

The following is required for the Associate in Science in Physics for Transfer (A.A.-T in Physics) degree:

1. Completion of 60 semester units or 90 quarter units that are eligible for transfer to a California State University, including both of the following:
   (A) The Interssegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements.
   (B) A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
2. Obtainment of a minimum grade point average of 2.0.

ADTs also require that students must earn a C or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is not an acceptable grade for courses in the major.

REQUIRED COURSES – COMPLETE 30 UNITS

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<tr>
<th>Course Code</th>
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<tr>
<td>PHYS 101</td>
<td>General Physics: Mechanics</td>
<td>5</td>
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<tr>
<td>PHYS 102</td>
<td>General Physics: Waves, Thermodynamics, and Optics</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 103</td>
<td>General Physics: Electricity, Magnetism, and Modern Physics</td>
<td>5</td>
</tr>
<tr>
<td>MATH 171</td>
<td>Calculus: First Course</td>
<td>5</td>
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<tr>
<td>MATH 172</td>
<td>Calculus: Second Course</td>
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</tr>
<tr>
<td>MATH 173</td>
<td>Calculus: Third Course</td>
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</tbody>
</table>

TOTAL UNITS IN THE A.S.-T MAJOR ......................................................... 30
**Physics Courses (PHYS)**

**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 PHYS 5A) (CID PHYS 210) (MJC PHYS 101 + PHYS 102 + PHYS 103) 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) (CID PHYS 205) (MJC PHYS 101 + PHYS 102 + PHYS 103) 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 PHYS 5B) (CID PHYS 210) (MJC PHYS 101 + PHYS 102 + PHYS 103) 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 PHYS 101 and 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 PHYS 4A) (CID PHYS 105) 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 PHYS 4B) (CID PHYS 110) General Education: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

**PHYS 160—DESCRIPTIVE INTRODUCTION TO PHYSICS 3 UNITS**
54 Lecture Hours
Prerequisite: Satisfactory completion of MATH 89 or MATH 90 or qualification by the MJC assessment process.
A survey course of selected topics in physical inquiry to include mechanics, wave motion, thermodynamics, electromagnetism and modern physics. Physical theory is explored on a conceptual level with emphasis placed on applying physical principles to everyday phenomena. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) (CC PHYS 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 topical 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)

**Physiology Courses (PHYSO)**

**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**
54 Lecture Hours
Also offered as: PSYCH-103
Prerequisite: Satisfactory completion of PSYCH 101.
Plant Science PROGRAM

A.S. DEGREE: CROP SCIENCE

The student acquires skills in production of the common row and field crops grown in the Central Valley. Specific skills are emphasized in seedbed preparation, planting, fertilizing, weed control, pest management, harvesting, and marketing. Training leads to farming as well as employment in allied businesses such as fertilizer or agricultural chemical companies, seed companies, processing companies, and other related industries. Contact the division office in the Agriculture Building for advising assistance.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Employ the scientific method to solve problems in the laboratory and in the field.
2. Practice safe work habits in an employment setting, including handling and storage of hazardous materials.
3. Demonstrate sufficient mastery of general plant science skills for technical employment in the plant science management industry (agronomy, pomology, viticulture, and enology, or oleoculture).
4. Apply the principles of ecology, soil science, and plant science to crop management problems.
5. Develop integrated pest management programs for specific crops.

MAJOR REQUIREMENTS

To earn an Associate in Science Degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway or the University Preparation Pathway which include completion of the requirements below.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

AG 115 * [ 1 ] Introduction to Agricultural Education & Careers ........................................ 1  
AG 249 ** [ 4 ] Agriculture Internship ................................................................................. 2 OR  
AG 349A-B-C, or a combination of AG 249 and AG 349A-B.

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

ANSC 200 [NP] Introduction to Animal Science ................................................................. 3  
NR 200 [NP] Soils .................................................................................................................. 4  
AGM 200 [NP] Introduction to Mechanical Technology .................................................... 4  
AGEC 225 [NP] Agriculture Computer Applications .......................................................... 3 OR  
AGEC 210 [NP] Elements of Agricultural Economics ....................................................... 3 OR  
AGEC 200 [NP] Agricultural Accounting and Analysis .................................................. 3

III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS

PLSC 200 [NP] Introduction to Plant Science ................................................................. 3  
PLSC 205 [NP] Field Crops ................................................................................................ 3  
PLSC 215 [NP] Vegetable Crops ....................................................................................... 3  
PLSC 250 [NP] Plant Nutrition and Fertilizer ................................................................. 3

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 6 UNITS

AGM 235 [NP] Irrigation and Drainage ............................................................................. 3  
PLSC 235 [NP] Plant Pest Control .................................................................................... 3  
PLSC 260 [NP] Plant Disease Control ............................................................................. 3

Any course not used in Area III

TOTAL UNITS ................................................................................................................. 29

*Required  
**Internship/Work Experience must be Agriculture related

Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 349D, or a combination of AG 349A-C, or a combination of AG 249 and AG 349A-B.

*Pending State Chancellor's Office approval.

A.S. DEGREE: FRUIT SCIENCE

The student will develop skills and knowledge in managing a horticultural fruit production operation. Training in this course includes practical horticultural skills such as propagation, pruning, thinning, planting, and management skills, such as supervision of labor, selecting insurance, credit, orchard planning, spray programs, and calendar of operation. The program also prepares students for transfer to a four-year college. Contact the division office in the Agriculture Building for advising assistance.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Employ the scientific method to solve problems in the laboratory and in the field.
2. Practice safe work habits in an employment setting, including handling and storage of hazardous materials.
3. Demonstrate sufficient mastery of general plant science skills for technical employment in the plant science management industry (agronomy, pomology, viticulture and enology, or oleoculture).
4. Apply the principles of ecology, soil science, and plant science to crop management problems.
5. Develop integrated pest management programs for specific crops.

MAJOR REQUIREMENTS

To earn an Associate in Science Degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway or the University Preparation Pathway which include completion of the requirements below.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

AG 115 * [ 1 ] Introduction to Agricultural Education & Careers ........................................ 1  
AG 249 ** [ 4 ] Agriculture Internship ................................................................................. 2 OR  
AG 349ABCD [NP] Work Experience Agriculture - Supervised Practice ......................... 1 - 4

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

ANSC 200 [NP] Introduction to Animal Science ................................................................. 3  
NR 200 [NP] Soils .................................................................................................................. 4  
AGM 200 [NP] Introduction to Mechanical Technology .................................................... 3  
AGEC 225 [NP] Agriculture Computer Applications .......................................................... 3 OR  
AGEC 210 [NP] Elements of Agricultural Economics ....................................................... 3 OR  
AGEC 200 [NP] Agricultural Accounting and Analysis .................................................. 3

III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS

PLSC 200 [NP] Introduction to Plant Science ................................................................. 3  
PLSC 205 [NP] Field Crops ................................................................................................ 3  
PLSC 215 [NP] Vegetable Crops ....................................................................................... 3  
PLSC 250 [NP] Plant Nutrition and Fertilizer ................................................................. 3

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 6 UNITS

AGM 235 [NP] Irrigation and Drainage ............................................................................. 3  
PLSC 235 [NP] Plant Pest Control .................................................................................... 3  
PLSC 260 [NP] Plant Disease Control ............................................................................. 3

Any course not used in Area III

TOTAL UNITS ................................................................................................................. 29

*Required  
**Internship/Work Experience must be Agriculture related

Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 349D, or a combination of AG 349A-C, or a combination of AG 249 and AG 349A-B.

*Pending State Chancellor's Office approval.
III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS

COMPLETE 3 UNITS

PLSC 230 (NP) Fruit Science ................................................. 3

COMPLETE 6 UNITS

PLSC 241 (NP) Viticulture ................................................. 3
PLSC 255 (NP) Plant Pest Control ..................................... 3
PLSC 200 (NP) Introduction to Plant Science ...................... 3

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 6 UNITS

PLSC 235 (NP) Plant Propagation/Production ...................... 3
PLSC 250 (NP) Plant Nutrition and Fertilizer ....................... 3
AGM 235 (NP) Irrigation and Drainage .............................. 3
PLSC 260 (NP) Plant Disease Control ............................... 3

Any course not used in Area III

TOTAL UNITS ........................................................................ 29

*Required
**Internship/Work Experience must be Agriculture related

Note: For Section I: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 349D, or a combination of AG 349A-C, or a combination of AG 249 and AG 349A-B.

*Pending State Chancellor’s Office approval.

Plant Science Courses (PLSC)

PLSC 200—INTRODUCTION TO PLANT SCIENCE 3 UNITS

54 Lecture Hours

Introduction to plant science including structure, growth processes, propagation, physiology, growth media, biological competitors, and post-harvest factors of food, fiber, and ornamental plants. Field trips are not required. (A-F Only) 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

36 Lecture Hours, 54 Lab Hours

Also offered as: EHS 235

Formerly listed as: PLSC - 235: Plant Propagation/Production Planting & Varieties

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EHS 210 or satisfactorily complete PLSC 200.

Plant propagation and production practices with emphasis on nursery operations including sexual and asexual reproduction, planting, transplanting, fertilizing, plant pest and disease control, structures and site layout. Preparation and use of propagating and planting mediums. Use and maintenance of common tools and equipment. Regulations pertaining to plant production. Students will need pruning shears, a grafting knife and a budding knife. Field trips are required. (A-F Only) 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)

PLSC 250—PLANT NUTRITION AND FERTILIZER 3 UNITS

36 Lecture Hours, 54 Lab Hours

An overview of plant nutrition principles in order to understand amendments, fertilizers, their uses, value, application, and relationship to soils and to crops grown in this area. Deficiency symptoms, pH, soil, water and plant tissue testing, and environmental factors and concerns. Field trips are required. (A-F Only) 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)

Political Science Courses (POLSC)

POLSC 101 — AMERICAN POLITICS 3 UNITS

54 Lecture Hours

Introduction to United States politics emphasizing the essential institutions, groups, beliefs, behaviors and processes that comprise the American political system at the national, state, and local levels. Special attention to rights and obligations of citizenship. (A-F or P/NP) Lecture. Transfer: (CSU, UC) (CC POLSC 10) (C-ID-POLS 110) General Education: (MJC-GE: B) (CSU-GE:B8) (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) 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

POLSC 132—POLITICAL SCIENCE / PROFESSIONAL SELLING
Program, the student is trained for entry-level jobs in sales. The Professional Selling Certificate program concerns itself with the activities that take place in the sale and distribution of goods and services in a world economy. It includes such areas of creative selling as marketing and business communication. Professional Selling is an important part of the marketing process. The salesperson must be able to interpret product and service features in terms of benefits and advantages to the consumer, and then persuade the buyer to select that product or service. In the Professional Selling Program, the student is trained for entry-level jobs in sales.
CERTIFICATE OF ACHIEVEMENT: PROFESSIONAL SELLING

The Professional Selling Certificate program concerns itself with the activities that take place in the sale and distribution of goods and services in a world economy. It includes such areas of creative selling as marketing and business communication. Professional Selling is an important part of the marketing process. The salesperson must be able to interpret product and service features in terms of benefits and advantages to the consumer, and to then persuade the buyer to select that product or service while recognizing the ethical issues that apply to the professional selling environment. In the Professional Selling Program, the student is trained for entry-level jobs in sales.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Recognize and analyze ethical issues as they apply to the professional selling environment.
2. Obtain employment in an entry level sales position.
3. Apply communication strategies for various audiences and contexts.

- Certificates are awarded to students in recognition of completion of specified requirements, which indicate proficiency. All Required Courses must be passed with a "C" grade or better. Interested students should consult Business Administration faculty advisors.

REQUIRED COURSES - COMPLETE 21 UNITS

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<td>Business Communication</td>
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<tr>
<td>BUSAD 245</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 358</td>
<td>Sales and Advertising Promotion</td>
<td>3</td>
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<tr>
<td>BUSAD 377</td>
<td>Human Relations in Business</td>
<td>3 OR</td>
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<tr>
<td>BUSAD 274</td>
<td>Human Resources Management</td>
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<tr>
<td>BUSAD 50</td>
<td>Business Computations</td>
<td>3</td>
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<tr>
<td>COMM 100</td>
<td>Fundamentals of Public Speaking</td>
<td>3</td>
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<tr>
<td>BUSAD 240</td>
<td>Principles of Management</td>
<td>3 OR</td>
</tr>
<tr>
<td>BUSAD 248</td>
<td>Introduction to Business</td>
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TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT: 21

* Pending State Chancellor’s Office approval.

PROGRAM REQUIREMENTS

TOTAL UNITS FOR A.A.-T MAJOR: 20 – 22

TOTAL UNITS THAT MAY BE DOUBLE-COUNTED: 13-19

GENERAL EDUCATION (CSU GE OR IGETC) UNITS: 37-39

ELECTIVE (CSU TRANSFERABLE) UNITS: 14-20

TOTAL UNITS FOR A.A.-T DEGREE (MAXIMUM): 60

*Note: Double counting courses in GE and the major is permissible. Guidance and Activities requirements are not required for the Associate in Arts in Psychology for Transfer degree.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
2. Understand and apply psychological principles to personal, social, and organizational issues.
3. Respect and use critical and creative thinking, skeptical inquiry, and, when possible, the scientific approach to solve problems related to behavior and mental processes.
4. Understand and apply basic research methods in psychology, including research design, data analysis, and interpretation.

A.A.-T DEGREE: PSYCHOLOGY

This program is designed to prepare students who wish to transfer to a CSU and major in Psychology. This program will provide students with an alignment of courses required for transfer and a cohesive group of courses in the area of Psychology. Courses such as general psychology, research methods in psychology, and introduction to neuroscience will enable the student to demonstrate ability to engage in critical thinking.

Psychology Courses (PSYCH)

PSYCH 51—PSYCHOLOGY IN EVERYDAY LIFE 3 UNITS

54 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 49.

Principles of human behavior and personality development, and their application to today’s world, including personal and job-related problem solving skills. Field trips are not required. (A-F or P/N) General Education: (MJC-GE: B)

296
**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) (CID-PSY 110) General Education: (MUC-GE: B) (CSU-GE: D9) (IGETC: 4I)

**PSYCH 102—RESEARCH METHODS** 3 UNITS

54 Lecture Hours

Prerequisite: Satisfactory completion of PSYCH 101 and MATH 134.

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

This course surveys various psychological research methods with an emphasis on research design, experimental procedures, descriptive methods, instrumentation and the collection, analysis, interpretation and reporting of research data. Research design and methodology will be examined through a review of research in a variety of sub-disciplines of psychology. Field trips might be required. (A-F Only) Transfer: (CSU, UC) (CC PSYCH 15)(CID-PSY 200)

**PSYCH 103—INTRODUCTION TO NEUROSCIENCE** 3 UNITS

54 Lecture Hours

Also offered as: PHYSIO 103: Introduction to Neuroscience

Prerequisite: Satisfactory completion of PSYCH 101.

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

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) (CID-PSY 150) General Education: (MUC-GE: A) (CSU-GE: B2) (IGETC: 5B)

**PSYCH 104—INTRODUCTION TO SOCIAL PSYCHOLOGY** 3 UNITS

54 Lecture Hours

Formerly listed as: PSYCH - 104: Social Psychology

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

This course considers individual human behavior in relation to the social environment. The power of the situation, other individuals, and the social group will be examined. Emphasized topics include: aggression, prejudice and stereotypes, interpersonal attraction, attitudes and attitude change, conformity, group phenomena, gender roles, cultural norms, person perception, and social cognition. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) (CID-PSY 170) General Education: (MUC-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) (CC: PSYCH 5)(CID-PSY 120) General Education: (MUC-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 130) General Education: (MUC-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) (CID-PSY 130) General Education: (MUC-GE: B) (CSU-GE: D4, D9) (IGETC: 4D, 4I)

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

54 Lecture Hours

Also offered as: HUMSR - 118: Pharmacology of Abused Substances

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete HUMSR 116 or satisfactorily complete PSYCH 101.

An introduction to psychopharmacology and the process of drug addiction. Topics include classification of abused and psychotherapeutic drugs, basic principles of pharmacology, behavioral and physiological effects of drugs, major neurotransmitter systems and how they are influenced by drugs. Field trips are not required. (A-F or P/NP) 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) (CID-PSY 115) General Education: (MUC-GE: E) (CSU-GE: E)
The Psychosocial Rehabilitation (PSR) program comes from the emerging need in the human services field to recruit and hire qualified persons to provide services for people who have mental health problems, including consumers and family members as employees in the mental health system. Completion of the Psychosocial Rehabilitation program will provide the SKILLS RECOGNITION holder with a core curriculum of essential skills necessary for jobs in the human services field and provide the nine units of college credit necessary to sit for the national test-based certification exam, enabling people to become Certified Psychosocial Rehabilitation Practitioners. This core set of courses not only provides a basic education for people entering the human services profession but also provides training and growth opportunities for existing human service employees. In addition, this SKILLS RECOGNITION will serve as another step in an educational and career ladder leading to a Human Services SKILLS RECOGNITION and/or Degree. All coursework will be applicable as electives and/or meet the requirements for the Human Services degrees at MJC.

**PROGRAM REQUIREMENTS**

To earn a Skills Recognition award, the student must complete the following coursework. Each course must be completed with a grade of C or better.

**REQUIRED COURSES - COMPLETE 9 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMSR 142</td>
<td>Introduction to Psychosocial Rehabilitation</td>
<td>3</td>
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<tr>
<td>HUMSR 143</td>
<td>Psychosocial Rehabilitation Practice</td>
<td>3</td>
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<tr>
<td>HUMSR 144</td>
<td>Community Agency Practicum Discussion</td>
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<td>HUMSR 145ABD</td>
<td>Community Agency Practicum</td>
<td>1-4</td>
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<tr>
<td>HUMSR 146</td>
<td>Psychosocial Rehabilitation with Children/Families</td>
<td>3</td>
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</table>

**TOTAL UNITS FOR SKILLS RECOGNITION AWARD** ....................................... 9

**Psychosocial Rehabilitation PROGRAM**

**SKILLS RECOGNITION: PSYCHOSOCIAL REHABILITATION**

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Examine and describe psychosocial rehabilitation, family systems, and historical perspectives as it relates to the public mental health movement.

2. Describe and demonstrate effective communication, body language, and written abilities with children, consumers, or families.

3. Analyze the impact of stigma, culture, and various practice models in psychosocial rehabilitation.

4. Classify various theoretical philosophies, biology, co-occurring disorders, environmental or psychosocial stressors, and the relation to psychosocial rehabilitation practice.

5. Conduct a basic assessment, interview, intervention, referral, individual and or group counseling session with individuals that have a severe and persistent mental illness.

**Public Safety Courses**

For Public Safety course descriptions, please see EMS (Emergency Medical Services) and FSCI (Fire Science).

**Reading Courses (READ)**

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<td>READ 40</td>
<td>READING COMPREHENSION</td>
<td>3</td>
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<tr>
<td>READ 62</td>
<td>COLLEGE VOCABULARY</td>
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</table>
The Real Estate Program is designed to provide the skills necessary for salespersons and other workers in the real estate field. Courses cover principles and practices of real estate, sales, financing, appraisal, escrow, and legal aspects of real estate. The courses fulfill the state education requirements for the salesperson and/or brokers licensing exams. For additional information on real estate licensing requirements, students should visit the California Bureau of Real Estate at http://www.bre.ca.gov/. Classes are also designed to upgrade the skills of persons already working in the real estate or escrow field(s).

**A.S. DEGREE: REAL ESTATE**

The Real Estate Program is designed to provide the skills necessary for salespersons and other workers in the real estate field. Courses cover principles and practices of real estate, sales, financing, appraisal, escrow, and legal aspects of real estate. The courses fulfill the state education requirements for the salesperson and/or brokers licensing exams. For additional information on real estate licensing requirements, students should visit the California Bureau of Real Estate at http://www.bre.ca.gov/. Classes are also designed to upgrade the skills of persons already working in the real estate or escrow field(s).

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Recognize and analyze ethical issues as they apply to the real estate environment.
2. Obtain employment in an entry-level position in the real estate field.
3. Identify and use common California real estate practices and basic real estate terminology.
4. Meet the education requirement for the basic California real estate agent's and/or salesperson's license exam.

To earn an Associate in Science Degree, the student must complete the MJC Associate Degree Requirements in addition to the following coursework. Degrees are awarded to students in recognition of completion of specified requirements, which indicate proficiency. All Required Courses must be passed with a "C" grade or better. The A.S. in Real Estate includes coursework which fulfills the education requirements for both the California State Real Estate Salesperson and Brokers License Exams. Other licensing requirements can be found at the California Bureau of Real Estate web site at http://www.bre.ca.gov/. Interested students should consult Business Administration faculty advisors.

**REQUIRED COURSES - COMPLETE 26 UNITS**

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<tr>
<td>RLES 380</td>
<td>Real Estate Principles</td>
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<td>RLES 381</td>
<td>Real Estate Practices</td>
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<tr>
<td>RLES 382</td>
<td>Legal Aspects of Real Estate 1</td>
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<td>RLES 384</td>
<td>Real Estate Finance</td>
<td>3</td>
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<td>RLES 385</td>
<td>Real Estate Appraisal, Residential</td>
<td>3</td>
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<tr>
<td>RLES 392</td>
<td>Basic Escrow Procedures</td>
<td>3</td>
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<tr>
<td>BUSAD 201</td>
<td>Financial Accounting</td>
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<tr>
<td>BUSAD 218</td>
<td>Business Law</td>
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</table>

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD**............................................. 26

* Pending State Chancellor's Office approval.
SKILLS RECOGNITION: REAL ESTATE SALESPERSON

The Real Estate Program is designed to provide the skills necessary for salespersons and other workers in the real estate field. Courses cover principles and practices of real estate, sales, financing, appraisal, escrow, and legal aspects of real estate. The courses fulfill the state education requirements for the salesperson and/or brokers licensing exams. For additional information on real estate licensing requirements, students should visit the California Bureau of Real Estate at http://www.bre.ca.gov/. Classes are also designed to upgrade the skills of persons already working in the real estate or escrow field(s).

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Recognize and analyze ethical issues as they apply to the real estate environment.
2. Identify and use common California real estate practices and basic real estate terminology.
3. Meet the education requirement for the basic California real estate salesperson’s license exam.

PROGRAM REQUIREMENTS

* Certificates are awarded to students in recognition of completion of specified requirements, which indicate proficiency. All Required Courses must be passed with a “C” grade or better. The Real Estate Skills Recognition Certificate includes coursework which fulfills the education requirements for the California State Real Estate Salesperson License Exam. Other licensing requirements can be found at the California Bureau of Real Estate web site at http://www.bre.ca.gov/. Interested students should consult Business Administration faculty advisors.

REQUIRED COURSES

RLES 380 [ 1 ] Real Estate Principles ................................................................. 3
RLES 381 [ 1 ] Real Estate Practices ................................................................. 3

ELECTIVE COURSE—COMPLETE ONE

RLES 382 [ 1 ] Legal Aspects of Real Estate 1 .................................................. 3
RLES 384 [ 1 ] Real Estate Finance ................................................................. 3
RLES 385 [ 1 ] Real Estate Appraisal, Residential ......................................... 3
RLES 392 [ 1 ] Basic Escrow Procedures ......................................................... 3
BUSAD 201 [ 1 ] Financial Accounting ......................................................... 4
BUSAD 216 [ 1 ] Business Law ................................................................. 4

TOTAL UNITS FOR SKILLS RECOGNITION AWARD ......................... 9 - 10

Real Estate Courses (RLES)

RLES 380—REAL ESTATE PRINCIPLES 3 UNITS

54.00 Lecture Hours

This beginning course in real estate fundamentals is required for the real estate salesperson’s license. The course covers real estate principles and laws in California including: terminology and definitions, real estate law, ownership rights, contracts, deeds, land titles, liens, escrows, leases, financing, land descriptions, mandatory disclosures, terminology, ethics, fair housing and licensing, real estate investment and career opportunities, as well as other subjects vital to a basic understanding of real estate are covered. This course is required to be eligible to sit for the California Real Estate Salesperson exam. Field trips might be required. (A-F or P/NP)

RLES 381—REAL ESTATE PRACTICES 3 UNITS

54.00 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete RLES 380.

This course covers the day-to-day activities of the real estate brokerage business from the viewpoint of both the broker and the sales staff. It gives practical training in such topics as: listing, prospecting, advertising, disclosures, selling escrow procedures, financing, exchanges, property management and leases, land utilization and development, public relations and professional ethics and fair housing in the real estate business. This course is required to be eligible to sit for the California Real Estate Salesperson’s License Exam. Field trips might be required. (A-F or P/NP)

RLES 382—LEGAL ASPECTS OF REAL ESTATE 1 3 UNITS

54.00 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete RLES 380.

This course is a study of California real estate laws. Topics include: the principal legal aspects of ownership, acquisition and transfer of real property, legal descriptions, contracts, escrow procedures, forms of trust and foreclosure, liens, and restrictions, legal instruments, property ownership and management, real estate security devices, property rights, liens and homesteads, landlord-tenant law, land use controls, and title insurance and escrow. Completion of the course applies toward the education requirements for the California Department of Real Estate License examination. Field trips might be required. (A-F or P/NP)

RLES 384—REAL ESTATE FINANCE 3 UNITS

54.00 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete RLES 380 or satisfactorily complete RLES 381.

This course is an analysis of real estate financing, including regulations, policies and procedures applicable to financing residential, multi-family, commercial and special purpose properties. Special attention to the money market, sources of funds and FHA and VA loans as factors in property financing. The course applies toward the educational requirements for the California Real Estate License Examination. Field trips might be required. (A-F or P/NP)

RLES 385—REAL ESTATE APPRAISAL, RESIDENTIAL 3 UNITS

54.00 Lecture Hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete RLES 380 and/or satisfactorily complete RLES 387.

This course covers the purposes of appraisals, examination of the appraisal process, and the different approaches, methods and techniques used to determine property value on cost, sales comparison, and income basis. Consideration of neighborhood and site analysis, residential style, and functional utility, three approaches to value, reconciliation of value indicators, and Uniform Standards of Professional Practice. The course emphasizes residential single family properties and applies toward the educational requirement for the California Real Estate License. Field trips might be required. (A-F or P/NP)
SKILLS RECOGNITION: RECORDING ARTS

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate effective use of current music technology as applied to recording and music production.
2. Record, mix and master an acoustic music group with multiple tracks and microphones, burn the work to a CD and present the work as a complete project.
3. Demonstrate the ability to select and correctly place microphones for sound capture.
4. Identify elements of sound and acoustics.
5. Create an electronic music composition using music technology and basic music compositional skills.
6. Demonstrate the ability to make a live recording of a musical group or large ensemble.
7. Summarize the evolution of American popular music genres.

REQUIRED COURSES - COMPLETE 11 UNITS

MUSC 111 [1] Recording Arts 1 ................................................................. 2
MUSC 112 [2] Recording Arts 2 ................................................................. 2
MUSC 126 [NP] Music Production for Multimedia .................................... 2
MUSC 121 [3] Introduction to the Synthesizer and MIDI ............................. 2
MUSG 111 [NP] Introduction to American Popular Music ............................ 3

ELECTIVE COURSES - COMPLETE 6 UNITS

MUST 101 [NP] Music Fundamentals ......................................................... 3
MUSA 121 [NP] Elementary Piano ............................................................. 1
MUSG 101 [NP] Music Appreciation ......................................................... 3
MUSG 112 [NP] The History of the Beatles ................................................. 3

TOTAL UNITS FOR SKILLS RECOGNITION AWARD.......................... 17

Records Management

PROGRAM

The Records Management/Data Entry Specialist Certificate of Achievement is designed for students desiring to meet entry-level requirements for records management and data entry employees: keyboarding, filing rules and their applications, manual and computer filing system development, telephone techniques, time management skills, ten-key data entry and math calculations.

CERTIFICATE OF ACHIEVEMENT: RECORDS MANAGEMENT/DATA ENTRY SPECIALIST

The Records Management/Data Entry Specialist Certificate of Achievement is designed for students desiring to meet entry-level requirements for records management and data entry employees: keyboarding, filing rules and their applications, manual and computer filing system development, telephone techniques, time management skills, ten-key data entry and math calculations.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Actively assist in implementing general office procedures, including records management.
2. Efficiently perform office-related duties utilizing prioritization and necessary communication skills.
3. Utilize computer software to manage data effectively.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES - COMPLETE 16 UNITS

OFADM 301 [1] Beginning Keyboarding .................................................... 1.5
OFADM 302 [1] Beginning Document Processing ..................................... 1.5
OFADM 304 [1] Professional English for Business .................................... 3
OFADM 313 [1] Office Skills .................................................................. 3
OFADM 361 [2] Introduction to Databases ................................................. 1
OFADM 375 [2] 10-Key on the Computer .................................................. 1

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD............. 16

Recreation Courses (REC)

With increased urbanization, expanded leisure time, and public awareness of the value of recreational activities, trained leaders are needed to organize and administer programs in a variety of settings. Since most jobs in Recreation require a four-year college degree, students in the Recreation program at MIC 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)

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**Respiratory Care PROGRAM**

The MJC Respiratory Care Program is a two-year associate degree program to prepare students to sit for the State Board Respiratory Care Practitioner Exam. The Respiratory Care Program of Modesto Junior College is accredited by the Commission on Accreditation for Respiratory Care (CoARC). Graduates are also eligible for both Certification and Registration administered by the National Board for Respiratory Care.

**Commission on Accreditation for Respiratory Care**

1248 Harwood Road

Bedford, Texas 76021-4244

(817) 283-2835

www.coarc.com

Program expenses vary for each individual. The estimated cost of the Respiratory Care Program is $5000, approximately $2,500 per year, which includes enrollment and materials fees, health clearance, uniforms, books, and licensure examination. If you would like information on financial aid, call (209) 575-7700.

The MJC Respiratory Care Program begins once a year in January. If you have questions about program information, contact Allied Health, 575-6362 or visit the Allied Health website at www.mjc.edu/alliedhealth and search Respiratory Care Program. For academic advising, contact the Respiratory Care Program Director at 575-6381, the Clinical Director at 575-6388, or the MJC Counseling Office at 575-6080.

**ELIGIBILITY AND PREPARATION**

**FOR THE RESPIRATORY CARE PROGRAM**

- Admission To Modesto Junior College
- High School Graduation is highly recommended but is not required.
- Transcripts on File in MJC Enrollment Services All college transcripts must be submitted with the program application to Allied Health, prior to the program application deadline, unless the transcripts are already on file in the MJC Enrollment Services, Student Services Building 102, (209) 575-6853. We will accept hand-carried transcripts that are in a sealed envelope with a school seal.

**REQUIRED MATH COMPETENCY FOR ACCEPTANCE INTO THE RESPIRATORY CARE PROGRAM**

- Eligibility for entrance into any 100-level MATH course through MJC Assessment process OR
- Score of 3, 4, or 5 on AP Exam: Calculus AB or Calculus BC or Statistics
- Completion of MATH 90 or higher level MATH course, or an equivalent course from another institution with a grade of C or better

**PROGRAM PREREQUISITES**

CHEM 143 Introductory College Chemistry ........................................................................ 5 AND

AP 150 Integrative Anatomy & Physiology (C or better)........................................... 4 OR 5

(ANAT 125 & PHYS 101, with a C or better, will be accepted in lieu of AP 150)

*NOTE: BIO 111 is a prerequisite for the anatomy, physiology, and microbiology courses.

**PROGRAM APPLICATION**

Students who have met/completed the requirements above may submit a Respiratory Care Program application during the application period:

August 1 through October 15

**PROGRAMS OFFERED**

Applications are available on the Allied Health website (www.mjc.edu/alliedhealth) during the application period only. Applications may be submitted in person or mailed, but must be received in the Allied Health office or postmarked by the application deadline.

**SELECTION PROCESS**

In order to be fully qualified for admission, applicants must have completed the program prerequisites with a grade of C or better at the time of application. In the event that there are more qualified applicants than space available, a weighted lottery system will be employed. An applicant's name will be entered an extra time for:

- MICROBIOLOGY - Satisfactory completion of MICRO 101
- PSYCHOLOGY - Satisfactory completion of PSYCH 101
- SCIENCE GPA - A grade point average (GPA) for chemistry, anatomy, and physiology of 3.0 or better OR a GPA for microbiology, chemistry, anatomy, and physiology of 2.75 or better.
- DEGREE REQUIREMENTS - Completion of the MJC General Education requirements or a bachelor's degree
- PREVIOUSLY QUALIFIED APPLICANT - Each previously qualified application to the MJC Respiratory Care program.

If the number of fully qualified applicants falls short of the number of available openings, provisionally qualified students will be eligible for admission. Students who have one or both of the prerequisites in progress at time of application may be provisionally qualified for acceptance into the program based upon completing the prerequisites with a grade of C or better. On a space available basis, applicants who have completed CHEM 143 with a C or better, but have not completed the AP 150 prerequisite may enroll in RSCR 230 in the spring and if they pass both courses with a grade of C or better, they will be officially accepted into the program at the end of spring semester and will then enroll in RSCR 230 in the summer.

**ADDITIONAL REQUIREMENTS**

**FOR ACCEPTED APPLICANTS ONLY**

Accepted applications will receive information on the clinical clearance process outlined below.

**CLINICAL CLEARANCE**

**HEALTH CLEARANCE**

- A medical history and physical examination completed by a physician, physician's
Further information on disciplinary guidelines may be obtained from:

screen applicants individually. Any student considering a career as a Respiratory Therapist may be issued without denial of a license. The Respiratory Care Board of California will and penalty determination may be performed and fines, warning letters, and/or probation evidence of rehabilitation to the Respiratory Care Board of California prior to taking the administered by the National Board for Respiratory Care.

The law provides for denial of licensure for crimes or acts, which may in any way be related to patient care activities, i.e., sex crimes, drug crimes, alcohol or drug abuse, and crimes of violence. In such cases, it is the applicant’s responsibility to present sufficient evidence of rehabilitation to the Respiratory Care Board of California prior to taking the licensure examination. If the above violations are only misdemeanors, an in-house review and penalty determination may be performed and fines, warning letters, and/or probation may be issued without denial of a license. The Respiratory Care Board of California will screen applicants individually. Any student considering a career as a Respiratory Therapist who might be denied licensure is advised to consult the Disciplinary Guidelines (California Code of Regulations, 1399.374) published by the Respiratory Care Board of California before entering the program. This document is available on reserve in the MJC library. Further information on disciplinary guidelines may be obtained from:

Respiratory Care Board of California
444 North 3rd Street Suite 270
Sacramento, CA 95814
Toll Free in California (866) 375-0386
http://www.rcb.ca.gov/

Students are strongly advised to complete the required curriculum listed under Required Courses (Non Respiratory Care) and additional associate degree requirements prior to entering the Respiratory Care Program. These courses must be completed by the last semester of the program with a grade of C or better in order to complete the Respiratory Care program and be eligible to take the certification and registration examination administered by the National Board for Respiratory Care.

A.S. DEGREE: RESPIRATORY CARE

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Efficiently perform patient assessments and render safe, effective, and quality respiratory care in an ethical manner for the welfare of both the patient and the Respiratory Care profession.

2. Develop habits, interests, and attitudes favorable to lifelong learning.

3. Successfully complete all required Respiratory Care curriculum in order to receive an A.S. degree in Respiratory Care.

4. Competently perform all duties and functions which may be delegated to registered respiratory care practitioners.

5. Successfully pass the National Board for Respiratory Care examination for certification as a Respiratory Care Practitioner as well as the Advanced Practitioner Exam.

REQUIRED COURSES (NON-RESPIRATORY CARE)

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>PSYCH 101</td>
<td>General Psychology</td>
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<tr>
<td>MICRO 101</td>
<td>Microbiology (Prerequisite to RSCR 242)</td>
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REQUIRED COURSES (RESPIRATORY CARE)

[FALL]

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<td>RSCR 220</td>
<td>Introduction to Respiratory Care Principles</td>
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<td>Basic Cardiopulmonary Anatomy &amp; Physiology</td>
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<td>RSCR 224</td>
<td>Respiratory Care Theory 2</td>
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<td>Advanced Cardiopulmonary Physiology</td>
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<td>RSCR 242</td>
<td>Critical Care Procedures</td>
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<td>RSCR 250</td>
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[SUMMER - FIRST SESSION]

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<td>Neonatal-Pediatric Respiratory Care</td>
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<tr>
<td>RSCR 251</td>
<td>Neonatal and Pediatric Clinical Practice</td>
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[SUMMER – SECOND SESSION]

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<td>RSCR 253</td>
<td>Neonatal and Pediatric Clinical Practice 2</td>
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<td>RSCR 246</td>
<td>Current Issues in Respiratory Care</td>
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<td>RSCR 248</td>
<td>Self-Directed Study</td>
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<tr>
<td>RSCR 252</td>
<td>Physician Rounds for Respiratory Care</td>
<td>0.5</td>
</tr>
<tr>
<td>RSCR 255</td>
<td>Clinical 4</td>
<td>4.5</td>
</tr>
<tr>
<td>RSCR 257</td>
<td>Clinical Preceptorship</td>
<td>2.5</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR A.S. MAJOR.......................................................... 51

To earn an Associate in Science Degree in Respiratory Care, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) in addition to the Respiratory Care coursework. Consult with an advisor for selection of courses.

TOTAL UNITS REQUIRED IN A.S. DEGREE ............................................ 72.5

*The Health Education requirement has been waived for all Allied Health certificates and degrees.
Respiratory Care Courses (RSCR)

RSCR 220—INTRODUCTION TO RESPIRATORY CARE PRINCIPLES 5 UNITS
72 Lecture Hours, 54 Lab Hours
Prerequisite: Satisfactory completion of CHEM 143.
Corequisite: Concurrent enrollment in RSCR 230.
Limitations on Enrollment: Enrollment limited to students admitted to the respiratory care program.
Covers basic physical principles necessary for the practice of respiratory care to include the following: medical terminology, fundamentals of general bedside patient care skills, underlying physical principles of respiratory care equipment, and indications for the use of oxygen and aerosol therapy and related equipment. Materials fee required. Field trips might be required. (A-F Only) 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) 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 3.5 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)

RSCR 240—ADVANCED CARDIOPULMONARY PHYSIOLOGY 4.5 UNITS
81 Lecture Hours
Prerequisite: Satisfactory completion of RSCR 222 and RSCR 224.
Limitations on Enrollment: Enrollment limited to students who are accepted into the Respiratory Care Program.
Advanced cardiopulmonary physiology and diagnostics for the second-year respiratory care student. Includes advanced arterial blood gas analysis, indices of oxygenation, chest x-ray interpretation, hemodynamic monitoring, laboratory testing, capnography, and ECG interpretation with an emphasis on clinical setting application. Also includes discussion of various pathologies caused by cardiovascular conditions. Field trips might be required. (A-F Only) Transfer: (CSU)

RSCR 242—CRITICAL CARE PROCEDURES 4.5 UNITS
63 Lecture Hours, 54 Lab Hours
Prerequisite: Satisfactory completion of RSCR 222, RSCR 224, and MICRO 101.
Limitations on Enrollment: Enrollment limited to students who are accepted into the Respiratory Care Program.
Theory and application of critical care procedures for second year respiratory care students. Advanced theory and application of mechanical ventilators, associated pathophysiology and pharmacology, microbiological issues in respiratory care; application of ECG interpretation and chest 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 0.5 UNITS
27 Lab 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. Materials fee required. Field trips are not required. (P/NP Only) Transfer: (CSU)
RSCR 250—CLINICAL 3 3.5 UNITS
189 Lab Hours
Formerly listed as RSCR 213
Prerequisites: Satisfactory completion of RSCR 222.
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 0.5 UNITS
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 0.5 UNITS
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 0.5 UNITS
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 4.5 UNITS
243 Lab Hours
Prerequisite: Satisfactory completion of RSCR 244.
Corequisite: Concurrent enrollment in RSCR 246.
Continued clinical experience in critical care units and introduction to clinical care in the neonatal intensive care unit as well as alternative site respiratory care. Field trips might be required. (P/NP Only) Transfer: (CSU)

RSCR 257—CLINICAL PRECEPTORSHIP 2.5 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)

**Retail Management (WAFC) Program**

The Retail Management Certificate Program is designed for individuals who are interested in or are currently employed in the retail industry and seek advancement into a managerial position in that field. Course work includes: retail store management, information systems, business mathematics, workplace writing, accounting, human resource management, marketing and business communications. Certificates are awarded to students in recognition of completion of specified requirements, which indicate proficiency. All certificate Required Courses must be passed with a “C” grade or better. Interested students should consult division advisors.

**Certificate of Achievement: Retail Management (WAFC)**

The Retail Management Certificate Program is designed for individuals who are interested in or are currently employed in the retail industry and seek advancement into a managerial position in that field. Course work includes: management, written and oral business communication, accounting, marketing, human relations and resource management, leadership, computer applications and retail management. The Retail Management Certificate is available to all students; however, individuals who are currently employed by a participating WAFC (Western Association of Food Chains) Retailer/Wholesaler are also eligible to receive a WAFC Retail Management Certificate from their employer. These students should contact the HR department of their employer and/or visit www.wafc.com for further details.

**Program Learning Outcomes**

Upon satisfactory completion of this award, the student should be prepared to:
1. Recognize and analyze ethical issues as they apply to the retail selling environment.
2. Obtain employment in a retail management position.
3. Apply communication strategies for retail selling environment.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of “C” or better. Interested students should consult Business Administration faculty advisors.

**Required Courses - Complete 8 (or 9) Courses**

- CSU 201 [1] General Computer Literacy .................................................................. 3
- BUSAD 240 [1] Principles of Management ............................................................. 3
- BUSAD 245 [1] Principles of Marketing .................................................................. 3
- ENGL 101 [2] Composition and Reading .............................................................. 3 OR
- COMM 102 [1] Fundamentals of Public Speaking ............................................... 3 OR
- COMM 102 [1] Introduction to Human Communication ....................................... 3
- BUSAD 246 [3] Retail Management ..................................................................... 3

**Total Units for Certificate of Achievement Award: 25-28**

*Pending State Chancellor’s Office approval.*
Sheet Metal Courses (SM)

The Vocational Sheet Metal courses teach layout, measurement, forming, and installation as well as the mathematics required for sheet metal fabrication. Curriculum is developed and closely monitored in consultation with local air conditioning and heating contractors.

SM 331—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)

Sign Language Courses (SIGN)

SIGN 125—ASL: BEGINNING COMMUNICATION WITH THE DEAF 3 UNITS
54 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.
Introduction to American Sign Language, 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)

Social Science Courses (SOCSC)

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. Graduation: (MJC ACTIVITIES) Transfer: (CC GUIDE 115)

SOCSC 105—WOMEN’S STUDIES 3 UNITS
54 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Using a multidisciplinary approach, this course explores political, economic, social, cultural, and historical issues from a feminist and global perspective. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: B,C)(CSU-GE: D0, D4)(IGETC: 4D, 4J)

SOCSC 109—INTRODUCTION TO EDUCATION—PRACTICUM IN TUTORING 3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as: SOCSC-109: Intro Education—Practicum in Tutoring
Limitations on Enrollment: Enrollment limited to students who provide fingerprint and TB clearance.
Orientation to the teaching profession. Designed for prospective elementary, secondary, or college teachers but open to all. Students are required to observe in an appropriate educational setting. Partially meets field experience requirement for teaching credential program at CSU Stanislaus. Fingerprint Clearance and TB Clearance is required. Transfer: (CSU) (CC EDUC 10)

SOCSC 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)

SOCSC 120A, 120B, 120C—COMPUTER APPLICATIONS 1,2,3 UNITS
IN THE SOCIAL SCIENCES
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)

SOCSC 154—MOVIES WITH A MESSAGE 3 UNITS
54 Lecture Hours
A thematic film course aimed at using the medium of film to broaden the awareness of current societal and global issues, focusing on different topics semester to semester. Selected sequences of feature films, documentaries, unusual foreign and domestic
releases will explore how film makers depict aspects of history, culture, religion, race, gender, class, ideology and other issues in a global perspective. Course will cover related elements of film style and theory, such as the relationship of subject to style, form and function. Field trips may be required. Lecture. **Transfer:** (CSU, UC) **General Education:** (MJC-GE: C) (CSU-GE: C1)

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### Sociology Program

#### A.A.-T Degree: Sociology

The Associate in Arts in Sociology for Transfer degree includes lower division coursework that is required for transfer. Sociology is the study of society and how individuals’ lives are shaped by the larger social structure. The Associate in Arts in Sociology for transfer degree will provide foundational training for students in sociological concepts. The program offers a diverse curriculum to provide students with the tools necessary to comprehend their social world, using sociological theory and methodology to focus on social structure and culture. The program includes courses that explore social institutions, social problems, race, ethnic relations and the family. The Associate in Arts in Sociology for Transfer degree is intended for students who plan to complete a bachelor’s degree in Sociology at a California State University campus. Students completing this degree are guaranteed admission to the CSU System, but not to a particular campus or Sociology. Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. The following is required for the Associate in Arts in Sociology for Transfer degree: (1) Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following: (A) The Interssegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements. (B) A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district. (2) Obtaining of a minimum grade point average of 2.0. (3) All courses required for the major must be completed with a C or better. A "P" (Pass) grade is not an acceptable grade for courses in the major.

**Program Learning Outcomes**

Upon satisfactory completion of this award the student will be able to:

1. Critically evaluate and apply theoretical concepts to specific sociological phenomenon.
2. Explain major sociological theories and relevant concepts.

**Program Requirements**

To earn an Associate in Arts in Sociology for Transfer Degree, the student must complete the requirements detailed in the Transfer Model Curriculum Pathway which include completion of the requirements below.

**Required Core - Complete 11 Units**

- SOCIO 101 [T1] Introduction to Sociology ................................................................. 3
- SOCIO 102 [NP] Social Problems in the United States ........................................... 3
- MATH 134 [NP] Elementary Statistics ................................................................. 5

**List A: Select Two (6 Units)**

- SOCIO 125 [NP] Sociology of the Family .................................................................. 3
- SOCIO 150 [NP] Ethnicity and Culture in America ........................................... 3
- PSYCH 104 [NP] Introduction to Social Psychology ........................................... 3

**List B: Select One (3 Units)**

- Any course from List A not already used ................................................................. 3
- SOCIO 154 [NP] African-American Cultures and ................................................. 3
- SOCIO 156 [NP] Mexican Culture in the United States ........................................ 3
- ANTHR 102 [NP] Cultural Anthropology .............................................................. 3
- SOCSC 105 [NP] Women’s Studies ............................................................... 3

**Total Units in the A.A.-T Major ............................................................................. 20**

- Total Units That May Be Double-Counted .......................................................... 12-15
- General Education (CSU-GE Or IGETC Pattern Units) ......................................... 37-39
- Elective (CSU Transferable Units) ....................................................................... 13-16

**Total Units Required for A.A.-T Degree .......................................................... 60**

*Note: Double counting courses in GE and the major is permissible. Guidance and Activities requirements are not required for this degree.

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### Sociology Courses (SOCIO)

**SOCIO 101 — Introduction to Sociology**

| 3 Units |

54 Lecture Hours

An introductory study of the basic concepts, theoretical approaches, and methods of sociology. Topics typically include the analysis and explanation of social structure, group dynamics, socialization and the self, social stratification, culture and diversity, social change, and globalization. Course objectives include the ability to apply sociological ideas to everyday life. Field trips might be required. (A-F or P/NP) **Transfer:** (CSU, UC) **General Education:** (MJC-GE: B) (CSU-GE: D0) (IGETC: 4J)

**SOCIO 102 — Social Problems in the United States**

| 3 Units |

54 Lecture Hours

The experiences of caregivers and patients from several ethnic minority groups. The study of contemporary social problems within the American society emphasizing, among other topics, alcohol and drugs, crime and violence, family problems, power, race, and gender inequalities. Construction of possible solutions to social problems will also be discussed. Field trips may be required. Lecture. **Transfer:** (CSU, UC) (CC SOCIO 2) (CID-SOCI 115) **General Education:** (MJC-GE: B) (CSU-GE: D0) (IGETC: 4I)

**SOCIO 125 — Sociology of the Family**

| 3 Units |

54 Lecture Hours

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

Sociological analysis of the family, including historical and recent changes, present nature and the socio-cultural and economic forces shaping these changes. Field trips are not required. (A-F or P/NP) **Transfer:** (CSU, UC) (CC SOCIO 12) (CID-SOCI 130) **General Education:** (MJC-GE: B) (CSU-GE: D0) (IGETC: 4I)
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) General Education: (MJC-GE: B) (CSU-GE: D0, D3) (IGETC: 4J)

SOCIO 154 — AFRICAN-AMERICAN CULTURES AND COMMUNITIES 3 UNITS
54 Lecture Hours
A sociological exploration of the social and historical forces shaping contemporary African-American experiences and their multiple statuses in American society. Effects of stratification, conflict and change as well as the historical and current roles of the family within dynamic communities are emphasized. Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D0, D3) (IGETC: 4J)

SOCIO 156 — MEXICAN CULTURE IN THE UNITED STATES 3 UNITS
54 Lecture Hours
Contemporary Mexican-American Culture, problems and contributions, origins and nature. Intergroup contacts and conflicts. Field projects concern Mexican-American assimilation within the region. Lecture. Once completion allowed. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D0, D3) (IGETC: 4J)

Spanish PROGRAM

The Department of Spanish offers various courses that provide students with the foundation for Spanish language study. Knowledge of Spanish is highly desirable in the many fields, such as health, service, business, travel and interpreting. Beyond the immediate practical advantages of learning a foreign language, there is also the profound personal enrichment that comes from first-hand knowledge of other cultures. Students majoring in Spanish have the opportunity to become acquainted with the history, literature, and art of the Spanish-speaking world. Students are urged to discuss their plans with faculty and counselors regarding the specific lower-division requirements at the four-year colleges and universities they plan to attend.

A.A. DEGREE: SPANISH

The Department of Spanish offers various courses that provide students with the foundation for Spanish language study. Knowledge of Spanish is highly desirable in the many fields, such as health, service, business, travel and interpreting. Beyond the immediate practical advantages of learning a foreign language, there is also the profound personal enrichment that comes from first-hand knowledge of other cultures. Students majoring in Spanish have the opportunity to become acquainted with the history, literature, and art of the Spanish-speaking world. Students are urged to discuss their plans with faculty and counselors regarding the specific lower-division requirements at the four-year colleges and universities they plan to attend.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Communicate orally in Spanish in real-life situations at an advanced high proficiency level.
2. Demonstrate proficiency in the comprehension of oral messages.
3. Demonstrate proficiency in oral expression in Spanish.
4. Understand someone else speaking about a discipline-related topic and be able to engage that person in discussion.
5. Communicate in writing in Spanish at an advanced high proficiency level with minimal errors in grammar, spelling and the mechanics of writing.
6. Write clear and coherent essays in Spanish on various topics related to everyday situation and work.
7. Exhibit research skills for producing papers including familiarity with library resources and the ability to gather and synthesize information.
8. Exhibit the ability to properly quote, paraphrase, and summarize other texts.
9. Read critically, interpret analytically, and write coherently about literature produced in Spanish.
10. Analyze and interpret a variety of literary and cultural texts.
11. Write clear and coherent essays in Spanish on literary topics.
12. Apply critical thinking skills as they read texts.
13. Interpret the use of rhetorical and literary techniques.
14. Understand and demonstrate appreciation of the cultural values of Spanish-speaking peoples.
15. Identify significant individuals and major historical events and developments within Spanish-speaking nations and cultures.
16. Analyze social, ethnic, and linguistic diversity in the Spanish-speaking world.
17. Compare and contrast the differences and similarities between the U.S. and the Spanish-speaking Cultures.

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below

REQUIRED PREPARATORY COURSES — COMPLETE 10 UNITS

SPAN 102 [1] Spanish 2 ................................................................. 5
SPAN 103 [1] Spanish 3 ................................................................. 5
SPAN 104 [1] Spanish 4 ................................................................. 5
SPAN 109 [2] Spanish for Spanish Speakers 1 ................................. 5
SPAN 110 [NP] Spanish for Spanish Speakers 2 ............................ 5

REQUIRED COURSES — COMPLETE 6 UNITS

SPAN 112 [NP] Intro. to Chicano/a Literature ................................ 3
SPAN 173 [NP] Survey of Latin American Literature ....................... 3

ELECTIVE COURSES — COMPLETE 6 UNITS

ENGL 172 [NP] Introduction to Chicano/a Literature ...................... 3
ENGL 173 [NP] Introduction to Latin American Literature ................ 3
HIST 125 [NP] History of Mexico .................................................. 3
HIST 145 [NP] History of Latin America ....................................... 3
SOCIO 156 [NP] Mexican Culture in the United States .................... 3

TOTAL UNITS IN A.A. MAJOR ................................................... 22
Spanish Courses (SPAN)

SPAN 45 A, B, C, X — PRACTICAL SPANISH FOR THE PROFESSIONS 0.5 - 3 UNITS
90 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 are not required. (A-F or P/NP) 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 Spanish 101. Emphasis on preterite and imperfect tenses of the indicative mood. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) (CC: SPAN 1B) General Education: (MJC-GE: C) (CSU-GE: C2) (IGETC: 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 high school Spanish. Lecture. (A-F or P/NP) Transfer: (CSU, UC) (CC SPAN 2A) General Education: (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

SPAN 104 — SPANISH 4 5 UNITS
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)

SPAN 109 — SPANISH FOR SPANISH SPEAKERS 1 5 UNITS
90 Lecture Hours
Formerly listed as: SPAN - 109: Span for Span Speakers: Fundamentals
Recommended for Success: Before enrolling in this course, students are strongly advised to understand and be able to communicate in Spanish with near native fluency. Some formal academic study in the language is also desired.
The first of two courses intended for Native or Heritage Spanish speakers who already speak, read and write in Spanish at varying levels and with some academic study in the language. This course will focus on: the review of major elements of Spanish grammar, vocabulary acquisition, and student improvement of oral and written communication skills. Through the study of selected readings, students will expand on their own experiences and explore other Spanish Speaking cultures. Equivalent to the satisfactory completion of two years high school Spanish. Taught in Spanish. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

SPAN 110 — SPANISH FOR SPANISH SPEAKERS 2 5 UNITS
90 Lecture Hours
Prerequisite: Satisfactory completion of SPAN 109.
A continuation of SPAN 109. This course is intended for Spanish-speaking students who seek to continue building their reading, writing, speaking, and listening skills in standard Spanish. Students will continue to increase awareness of linguistic registers, and discuss topics beyond the familiar routine through continued grammar review, vocabulary expansion and writing. Students will continue to expand upon their appreciation for Spanish speaking cultures through the discussion and analysis of selected readings, in Spanish, from Spanish speaking countries and the United States. Equivalent to the satisfactory completion of three years of high school Spanish. Taught exclusively in Spanish. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

SPAN 112 — INTRODUCTION TO CHICANO/A LITERATURE 3 UNITS
54 Lecture Hours
Formerly listed as: SPAN - 112: Introduction to Chicano/a Literature
Prerequisite: Satisfactory completion of SPAN 104 or SPAN 110.
Overview of the historical development and current trends in Chicano/a literature; taught in Spanish. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

SPAN 173 — SURVEY OF LATIN AMERICAN LITERATURE 3 UNITS
54 Lecture Hours
Prerequisite: Satisfactory completion of SPAN 104 or SPAN 110.
Introduction to Latin American literature from the Pre-Colombian Period to the present; a literary survey of major works from different literary movements and from various genres such as poetry, short story, essay, drama, and the novel. Taught in Spanish. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C2) (IGETC: 3B, 6A)
The Supervisory Management Program is designed to prepare students for leadership responsibilities at the operating level in business, industry, and government. It also provides owners, managers, and other supervisory personnel with the opportunity to complete specific courses designed to develop management ability. Many of the courses are offered in the evening to accommodate working students who are interested in upgrading their skills.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Recognize and analyze ethical issues as they apply to the business environment.
2. Obtain employment in an entry-level supervisory position within industry and/or government sectors.
3. Use appropriate and effective business communication skills.

To earn an Associate in Science Degree, the student must complete the MJC Associate Degree Requirements in addition to the following coursework. Degrees are awarded to students in recognition of completion of specified requirements, which indicate proficiency. All Required Courses must be passed with a "C" grade or better. Interested students should consult Business Administration faculty advisors.

REQURED COURSES - COMPLETE 12 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAD 377</td>
<td>Human Relations in Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 248</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 245</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 274</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 201</td>
<td>Financial Accounting</td>
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<tr>
<td>OFADM 304</td>
<td>Professional English for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 210</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 248</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 310</td>
<td>Bookkeeping 1</td>
<td>3 OR</td>
</tr>
<tr>
<td>BUSAD 240</td>
<td>Principles of Management</td>
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</tr>
<tr>
<td>BUSAD 377</td>
<td>Human Relations in Business</td>
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ELECTIVE COURSES - COMPLETE 12-13 UNITS

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<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>BUSAD 310</td>
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<td>OFADM 304</td>
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<tr>
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<td>BUSAD 248</td>
<td>Introduction to Business</td>
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TOTAL UNITS IN A.S. MAJOR ............................................................. 24-25

* Pending State Chancellor's Office approval.

CERTIFICATE OF ACHIEVEMENT: SUPERVISORY MANAGEMENT

The Supervisory Management Program is designed to prepare students for leadership responsibilities at the operating level in business, industry, and government. It also provides owners, managers, and other supervisory personnel with the opportunity to complete specific courses designed to develop management ability. Many of the courses are offered in the evening to accommodate working students who are interested in upgrading their skills.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Recognize and analyze ethical issues as they apply to the business environment.
2. Obtain employment in an entry-level supervisory position within industry and/or government sectors.
3. Use appropriate and effective business communication skills.
PROGRAM REQUIREMENTS

- Certificates are awarded to students in recognition of completion of specified requirements, which indicate proficiency. All Required Courses must be passed with a "C" grade or better. Interested students should consult Business Administration faculty advisors.

REQUIRED COURSES - COMPLETE 12 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SUPR 106</td>
<td>3</td>
<td>Group &amp; Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>SUPR 351</td>
<td>3</td>
<td>Elements of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 274</td>
<td>2</td>
<td>Human Resources Management</td>
<td>2</td>
</tr>
<tr>
<td>BUSAD 364</td>
<td>3</td>
<td>Total Quality Management</td>
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ELECTIVE COURSES - COMPLETE 9-10 UNITS

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<tbody>
<tr>
<td>BUSAD 310</td>
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<td>Bookkeeping 1</td>
<td>3 OR</td>
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<tr>
<td>BUSAD 201</td>
<td>3</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSAD 210</td>
<td>3</td>
<td>Business Communication</td>
<td>3 OR</td>
</tr>
<tr>
<td>OADM 364</td>
<td>2</td>
<td>Professional English for Business</td>
<td>3</td>
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<tr>
<td>BUSAD 240</td>
<td>2</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 248</td>
<td>1</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 245</td>
<td>2</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 377</td>
<td>1</td>
<td>Human Relations in Business</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD: 21-22

Supervisory Management Courses (SUPR)

SUPR 106 — GROUP & ORGANIZATIONAL COMMUNICATION 3 UNITS

S4 Lecture Hours
Formerly listed as: SUPR - 106: Organizational Communication
Also offered as: COMM - 106
Formerly listed as: SPCOM - 106: Organizational Communication

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

SUPR 351 — ELEMENTS OF SUPERVISION 3 UNITS

S4 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

S4 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)

Theatre PROGRAM

The Theatre Program at MJC is designed to prepare students to work in professional or semiprofessional theatre situations or to transfer to four-year colleges and universities to pursue additional drama classes that may include preparation for teaching theatre. The program is designed to teach students the techniques of acting, costuming, directing, playwriting, lighting, makeup, oral interpretation, stage design, and children’s theatre. The Theatre Program provides students the opportunity to act in major productions.

A.A.-T DEGREE: THEATRE ARTS

ABOUT THIS DEGREE

The Associate in Arts in Theatre Arts for Transfer degree (AA-T) prepares students to transfer into the CSU system leading to a baccalaureate degree in Theatre Arts which can lead to careers in teaching, design, technical theatre, theatre management, professional performance, stage direction, stage management, etc. Please consult a counselor regarding specific course requirements for the transfer institution. Completion of the Associate in arts in Theatre Arts for Transfer degree also provides guaranteed admission with junior status to the CSU system. Upon completion of the Associate in arts in Theatre Arts for Transfer students will understand and be able to demonstrate the fundamental performance and technical production processes for the Theatre Arts, demonstrate knowledge of the historical and cultural dimensions of theatre and understand the interaction between script, actor and audience and the areas of scenery, lighting, sound and costume.

The Associate in arts in Theatre Arts for Transfer degree is intended for students who plan to complete a bachelor's degree in Theatre Arts at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate knowledge of theatre from an historical perspective.
2. Demonstrate an understanding of time management, commitment, follow-through, and responsibility to achieve a common goal.
3. Creatively analyze, critique, and interpret works of theatrical art.
4. Demonstrate an understanding of and empathy for racial, ethnic and cultural diversity of U.S. and world theatre.
5. Express creativity in the artistic process.

The following is required for the Associate in arts in Theatre Arts for Transfer:

- A minimum of 18 semester units or 27 quarter units in the major with a grade of C or better while maintaining a minimum grade point average (GPA) of at least 2.0 in all CSU transferable coursework
- Completion of 60 semester or 90 quarter CSU-transferable units using the CSU-GE Breadth or the IGETC pattern
- Exactly 60 semester units or 90 quarter units are required for the degree
The Theatre program provides students the opportunity to act in major productions. It encompasses playwrighting, lighting, makeup, oral interpretation, stage design, and children’s theatre. The program is designed to teach students the techniques of acting, costuming, directing, and other aspects of theatre to pursue additional drama classes that may include preparation for teaching theatre. Students may transfer to four-year colleges and universities to work in professional or semi-professional theatre situations or to transfer to four-year colleges and universities to pursue additional drama classes that may include preparation for teaching theatre. The Theatre program at MJC is designed to prepare students to work in professional or semi-professional theatre situations or to transfer to four-year colleges and universities to pursue additional drama classes that may include preparation for teaching theatre. The program is designed to teach students the techniques of acting, costuming, directing, playwriting, lighting, makeup, oral interpretation, stage design, and children’s theatre. The Theatre program provides students the opportunity to act in major productions.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Distinguish and describe different practices in World Theater based on history, culture, ethnicity and race.
2. Evaluate theater productions by describing the artistic and collaborative processes that were involved in the creation of the production.
3. Apply acting and technical skills to create a theatrical piece of art.

**PROGRAM REQUIREMENTS**

To earn an Associate in Arts Degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway or the University Preparation Pathway which include completion of the requirements below. Students should consult with a Theatre faculty advisor for selection of elective Units. Students who plan to transfer to a four-year college or university should consult with a Theatre faculty advisor to ensure that all required transfer courses are completed.

**REQUIRED COURSES - COMPLETE 7 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THETR 100</td>
<td>Introduction to Theatre Arts</td>
<td>3</td>
</tr>
<tr>
<td>THETR 160</td>
<td>Fundamentals of Acting</td>
<td>3</td>
</tr>
<tr>
<td>THETR 190</td>
<td>Theatre Production Workshop</td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES: GENERAL - COMPLETE 10 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THETR 105</td>
<td>Introduction to Stagecraft</td>
<td>3</td>
</tr>
<tr>
<td>THETR 161</td>
<td>Intermediate Acting</td>
<td>3</td>
</tr>
<tr>
<td>THETR 174</td>
<td>Stage Makeup</td>
<td>3</td>
</tr>
<tr>
<td>THETR 175</td>
<td>Stage Costuming</td>
<td>3</td>
</tr>
<tr>
<td>THETR 178</td>
<td>Introduction to Scenery Design</td>
<td>3</td>
</tr>
<tr>
<td>THETR 182</td>
<td>Practical Stage Lighting</td>
<td>3</td>
</tr>
<tr>
<td>THETR 156</td>
<td>Rehearsal and Performance in Comedy</td>
<td>2</td>
</tr>
<tr>
<td>THETR 157</td>
<td>Rehearsal and Performance in Drama</td>
<td>2</td>
</tr>
<tr>
<td>THETR 158</td>
<td>Rehearsal and Performance in Classical Theatre</td>
<td>2</td>
</tr>
<tr>
<td>THETR 159</td>
<td>Rehearsal and Performance in Musical Theatre</td>
<td>2</td>
</tr>
<tr>
<td>THETR 190</td>
<td>Theatre Production Workshop</td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED IN A.A.-T MAJOR**

**UNITS REQUIRED FOR CSU-GE BREADTH**

**UNITS REQUIRED FOR IGETC/CSU BREADTH**

**UNITS REQUIRED FOR CSU TRANSFERABLE ELECTIVES (AS NEEDED)**

**TOTAL UNITS REQUIRED FOR A.A.-T DEGREE**

**Note:** Double counting courses in GE and the major is permissible. MJC Guidance and Activities requirements are not required for the Associate in arts in Theatre Arts for Transfer degree.

**A.A. DEGREE: THEATRE**

Theatre Program at MJC is designed to prepare students to work in professional or semi-professional theatre situations or to transfer to four-year colleges and universities to pursue additional drama classes that may include preparation for teaching theatre. The program is designed to teach students the techniques of acting, costuming, directing, playwriting, lighting, makeup, oral interpretation, stage design, and children’s theatre. The Theatre program provides students the opportunity to act in major productions.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Describe how theatre artists collaborate in order to create a theatrical production.
2. Analyze a script in terms of themes, place, time period, style, plot, genre and mood as applied to scenery, costume and lighting planning and design.

**SKILLS RECOGNITION: DESIGN & TECHNICAL THEATRE**

The Theatre Program at MJC is designed to prepare students to work in professional or semi-professional theatre situations or to transfer to four-year colleges and universities to pursue additional drama classes that may include preparation for teaching theatre. The program is designed to teach students the techniques of acting, costuming, directing, playwriting, lighting, makeup, oral interpretation, stage design, and children’s theatre. The Theatre program provides students the opportunity to act in major productions.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Describe how theatre artists collaborate in order to create a theatrical production.
2. Analyze a script in terms of themes, place, time period, style, plot, genre and mood as applied to scenery, costume and lighting planning and design.
The Theatre program provides students the opportunity to act in major productions, playwrighting, lighting, makeup, oral interpretation, stage design, and children's theatre. The program is designed to teach students the techniques of acting, costuming, directing, and to pursue additional drama classes that may include preparation for teaching theatre. The theatre program at MJC is designed to prepare students to work in professional or semi-professional theatre situations or to transfer to four-year colleges and universities to pursue additional drama classes that may include preparation for teaching theatre. The program is designed to teach students the techniques of acting, costuming, directing, playwrighting, lighting, makeup, oral interpretation, stage design, and children's theatre. The Theatre program provides students the opportunity to act in major productions.

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:

1. Solve memorization and other problems of scene preparation.
2. Employ advanced acting techniques for character development, physical and vocal warm ups and performance preparation.
3. Analyze a script verbally and/or in writing in terms of theme, character and motivational units.
4. Demonstrate the ability to improve a performance after receiving a critique from a director.
5. Properly cut and edit performance material from larger works.

To earn a Skills Recognition Award, the student must complete the following coursework. Each course must be completed with a grade of C or better.

**REQUIRED COURSES - COMPLETE 16 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>THETR 100 Introduction to Theatre Arts</td>
<td>3</td>
</tr>
<tr>
<td>THETR 174 Stage Makeup</td>
<td>3</td>
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<tr>
<td>THETR 175 Stage Costuming</td>
<td>3</td>
</tr>
<tr>
<td>THETR 182 Practical Stage Lighting</td>
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<tr>
<td>THETR 190 Theatre Production Workshop</td>
<td>3</td>
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<tr>
<td>THETR 196 Stage Management</td>
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**TOTAL UNITS FOR SKILLS RECOGNITION AWARD** ................. 16

**SKILLS RECOGNITION: THEATRE PERFORMANCE**

**Theatre Courses (THETR)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>THETR 100—INTRODUCTION TO THEATRE ARTS</td>
<td>3</td>
</tr>
<tr>
<td>54 Lecture Hours</td>
<td></td>
</tr>
<tr>
<td>This course focuses on the relationship of theatre to various cultures throughout history, and on the contributions of significant individual artists. This course introduces students to elements of the production process including playwriting, acting, directing, design, and criticism. Students will also survey different periods, styles and genres of theatre to elements of the production process including playwriting, acting, directing, design, and criticism. Students will also survey different periods, styles and genres of theatre. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) (CC: DRAMA 10) (CID-THTR 111) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)</td>
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<tr>
<td>THETR 103—DANCE REPERTORY REHEARSAL AND PERFORMANCE</td>
<td>2</td>
</tr>
<tr>
<td>108 Lab Hours</td>
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<tr>
<td>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) Graduation: (MJC: Activities). Transfer: (CSU, UC)</td>
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<tr>
<td>THETR 105—INTRODUCTION TO STAGECRAFT</td>
<td>3</td>
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<tr>
<td>45 Lecture Hours, 27 Lab Hours</td>
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<tr>
<td>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) Graduation: (MJC: Activities)</td>
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<tr>
<td>THETR 117—BALLET 3</td>
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<td>54 Lab Hours</td>
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<td>Also offered as: PEC 139</td>
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<tr>
<td>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)</td>
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<tr>
<td>THETR 118 BALLET 4</td>
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<td>54 Lab Hours</td>
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<td>Also offered as: PEC 146</td>
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<tr>
<td>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)</td>
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<tr>
<td>Course Code</td>
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<tr>
<td>THETR 120</td>
<td>Oral Interpretation</td>
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<tr>
<td>THETR 122</td>
<td>Introduction to Readers’ Theatre</td>
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<tr>
<td>THETR 123</td>
<td>Storytelling</td>
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<tr>
<td>THETR 124</td>
<td>Advanced Readers’ Theatre</td>
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<tr>
<td>THETR 129</td>
<td>Jazz 2</td>
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<tr>
<td>THETR 130</td>
<td>Jazz 3 Intermediate/Advanced</td>
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<tr>
<td>THETR 131</td>
<td>Fundamentals of Choreography 1</td>
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<td>THETR 132</td>
<td>Rehearsal and Performance 1</td>
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<td>THETR 133</td>
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<tr>
<td>THETR 135</td>
<td>Rehearsal and Performance 3</td>
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<tr>
<td>THETR 136</td>
<td>Rehearsal and Performance 4</td>
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</table>
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. Four completions allowed. (A-F or P/NP) Transfer: (CSU) Graduation: (MJC: Activities)

THETR 151—DANCE REHEARSAL & PERFORMANCE 1 1 UNIT
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 the 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 the 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 154—DANCE REHEARSAL & PERFORMANCE 3 2 UNITS
108 Lab Hours
Limitations on Enrollment: Enrollment limited to students who successfully pass the audition process.
This course is designed to provide students with the opportunity to participate in a concert dance production as a dancer and/or choreographer. Field trips might be required. (A-F or P/NP) 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 the audition process.
This course provides the opportunity for students to create original choreography and 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 the 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. Graduation: (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 the 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. Graduation: (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 the audition process.
Students participate as actors in a fully supported theatre production focused on individual and ensemble performance techniques that are essential for a classical play production. Participation in rehearsals and public performances is required. Field trips may be required. (A-F Only) Lab. Graduation: (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 the 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. Graduation: (MJC: Activities). Transfer: (CSU, UC) (CID-THTR 191)

THETR 160—FUNDAMENTALS OF ACTING 3 UNITS
45 Lecture Hours, 27 Lab Hours
Prerequisite: Satisfactory completion of THETR 160.
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) (CID-THTR 151) General Education: (MJC-GE: C) (CSU-GE: C1) (CID-THTR 191)

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) (CID-THTR 152) General Education: (MJC-GE: C) (CSU-GE: C1)
T: THEATRE

THETR 164—IMPROVISATIONAL ACTING  
45 Lecture Hours, 27 Lab Hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 160.  
Intensive study of the basic techniques of theatre games and improvisational acting with specific concentration on improvisational theatre formats. Course will culminate in a public improvisational performance. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

THETR 168—DANCE REHEARSAL & PERFORMANCE 4  
108 Lab Hours  
Limitations on Enrollment: Enrollment limited to students who successfully pass the audition process.  
This course is designed to provide students with the opportunity to participate in an intensive preparation for public performance as choreographed by faculty, visiting artists, and or students. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

THETR 170—HIP HOP  
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) Graduation: (MJC: Activities) Transfer: (CSU, UC)

THETR 174—STAGE MAKEUP  
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)

THETR 175—STAGE COSTUMING  
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) Graduation: (MJC: Activities)

THETR 176—MODERN DANCE 4  
54.00 Lab Hours  
Prerequisite: Satisfactory completion of THETR 185.  
Learn, practice and apply intermediate modern dance skills learned in Modern Dance 3 toward the refinement of technical and artistic expression characteristic of advanced level technique. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

THETR 177—BALLET 2  
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. Graduation: (MJC: Activities) Transfer: (CSU, UC)

THETR 178—INTRODUCTION TO SCENERY DESIGN  
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. Graduation: (MJC: Activities) Transfer: (CSU, UC)

THETR 181—JAZZ 2  
54 Lab Hours  
Also offered as: PEC 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. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

THETR 182—PRACTICAL STAGE LIGHTING  
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) Graduation: (MJC: Activities)

THETR 185—MODERN DANCE 1  
54 Lab Hours  
Also offered as: PEC 123  
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. Graduation: (MJC: Activities) Transfer: (CSU, UC)

THETR 186—MODERN DANCE 2  
54 Lab Hours  
Also offered as: PEC 122  
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)
TUTORING NON-CREDIT COURSES (TUTOR)

TUTOR 810—TUTOR TRAINING 0 UNITS
9 Lecture Hours

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. Four completions allowed. Lecture/Laboratory.

TUTOR 50—TUTOR TRAINING 2 UNITS
18.00 Lecture Hours, 54.00 Lab Hours

Limitations on Enrollment: Enrollment limited to students selected as tutors for the Library & Learning Center.

Designed for students to strengthen their effectiveness as tutors. Development of techniques of the tutoring process, including session preparation, short- and long-term planning, probing skills, critical thinking skills, study skills, and test taking skills. Emphasis on cross-cultural understanding and working with students with diverse abilities. This course in limited to students selected as tutors for the general campus. Field trips are not required. (P/NP Only)
Work Experience: 16 units maximum

A student must directly relate the work done to their major. Conversely, students 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 at school. Vocational Work Experience courses 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

Required. (Non-Graded course)

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, students 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.

Welding

Upon satisfactory completion of this award, the student should be prepared to:

1. Demonstrate compliance with current welding industry safety and environmental regulations.
2. Perform welding operations in accordance with structural, manufacturing, and food processing industries’ recognized and accepted practices.

To earn an Associate in Science Degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 101) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

REQUIRED COMPETENCIES

MATH 20 Pre-Algebra ........................................................................... 5 OR Eligibility for MATH 70 by MJC assessment process

REQUIRED COURSES—COMPLETE 30 UNITS

AGM 211 (NP) Advanced Agricultural Welding ........................................ 3
MACH 301(NP) Machine Shop 1 ..............................................................3
SM 331 (NP) Sheet Metal and Installation 1 ........................................... 3
SM 332 (NP) Sheet Metal and Installation 2 ........................................... 3
WELD 200 (NP) Arc & Gas Welding ...................................................... 3
WELD 204 (NP) Gas Metal Arc Welding (G.M.A.W) & Flux Core Arc Welding (F.C.A.W) .............................. 3
WELD 206 (NP) Gas Tungsten Arc Welding (G.T.A.W) ....................... 3
WELD 300 (NP) Intermediate Welding .................................................. 3
WELD 325 (NP) Design and Fabrication Processes ................................. 3
WELD 340(NP) Pipe Welding .............................................................. 3

TOTAL UNITS IN A.S. MAJOR ................................................................. 30

* Pending State Chancellor’s Office approval.
SKILLS RECOGNITION: DESIGN & FABRICATION

The Industrial Welding Program supports and maintains a training platform that focuses on the most common welding and sheet metal processes, certifications, and supporting technologies used in industry. The curriculum for the program is concentrated primarily on the Shielded Metal Arc, Gas Tungsten Arc, Gas Metal Arc, Flux Core Arc Welding, Oxy-Acetylene Welding, Oxy-Acetylene and Plasma Cutting. The program's courses expose students to both hands-on, laboratory and lecture learning objectives.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Develop and interpret various types of fabrication prints.
2. Develop and interpret weld and welding symbols.
3. Use the required welding and sheet metal equipment, perform typical metal fabrication operations.

PROGRAM REQUIREMENTS

To earn a Skills Recognition Award, the student must meet complete the required competencies, and complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COMPETENCIES FOR SKILLS RECOGNITIONS

MATH 20 Pre-Algebra .................................5 OR Eligibility for MATH 70 by MJC assessment process

REQUIRED COURSES – COMPLETE 12 UNITS

WELD 200 [1] Arc & Gas Welding .................................................................3
SM 331 [1] Sheet Metal and Installation 1 ............................................................3

TOTAL UNITS FOR SKILLS RECOGNITION AWARD ...........................................12

SKILLS RECOGNITION: PIPE WELDING

The Industrial Welding Program supports and maintains a training platform that focuses on the most common welding and sheet metal processes, certifications, and supporting technologies used in industry. The curriculum for the program is concentrated primarily on the Shielded Metal Arc, Gas Tungsten Arc, Gas Metal Arc, Flux Core Arc Welding, Oxy-Acetylene Welding, Oxy-Acetylene and Plasma Cutting. The program's courses expose students to both hands-on, laboratory and lecture learning objectives.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Identify and fit-up various pipe fittings and hangers.
2. Identify and select appropriate pipe hangers.
3. Calculate and fit up typical joint off-sets.
4. Perform typical welding procedures according to industry codes and standards using the SMAW process.

To earn a Skills Recognition Award, the student must meet complete the required competencies, and complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COMPETENCIES

All students who plan to earn a skills recognition must also meet the following competencies.
MATH 20 (NP) Pre-Algebra .................................................................5 OR Eligibility for MATH 70 by MJC assessment process

REQUIRED COURSES – COMPLETE 9 UNITS

WELD 200 [1] Arc and Gas Welding .................................................................3
WELD 300 [2] Intermediate Welding .................................................................3

TOTAL UNITS FOR SKILLS RECOGNITION AWARD ...........................................9
WELDING COURSES (WELD)

WELD 200—ARC & GAS WELDING  3 UNITS
36 Lecture Hours, 54 Lab Hours
Introduction level course with a lecture/lab format of instruction. Activities and topics include oxyacetylene welding/cutting and shielded metal arc welding processes. Materials fee required. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU)

WELD 204—GAS METAL ARC WELDING (G.M.A.W)  3 UNITS
36 Lecture Hours, 54 Lab Hours
Formerly listed as WELD 204 - Gas Metal Arc (GMAW) 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.

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.

Word Processing Program

The Word Processing Certificate program is designed to teach students word processing skills and concepts. Students acquire the necessary competencies for the modern office. Word processing and Desktop publishing has become one of the fastest growing careers during the past decade. There are a wide variety of employment opportunities available.

CERTIFICATE OF ACHIEVEMENT: WORD PROCESSING

The Word Processing Certificate program is designed to teach students word processing skills and concepts. Students acquire the necessary competencies for the modern office. Word processing and Desktop publishing has become one of the fastest growing careers during the past decade. There are a wide variety of employment opportunities available.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:

1. Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment.
2. Competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines.

To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES - COMPLETE 25.5 UNITS

- OFADM 303 [NP] Keyboarding for Speed and Accuracy .........................................................0.5
- OFADM 203 [1] Intermediate Keyboarding ............................................................3
- OFADM 231 [1] Intermediate Word Processing .........................................................3
- OFADM 311 [1] Business Proofreading and Editing ....................................................3
- OFADM 359 [1] Introduction to Spreadsheet Software .................................................1
- OFADM 361 [2] Introduction to Databases .................................................................1
- OFADM 363 [1] Understanding the Internet ...............................................................1
- OFADM 364 [2] Grammar in the Office .................................................................1

ELECTIVE COURSES - COMPLETE 6 UNITS

- CMPGR 217 [NP] Computer Illustration Software .........................................................3
- CMPGR 235 [NP] Beginning Photoshop .................................................................3

*Note: Not all courses are offered every semester; therefore, students should see an advisor for appropriate course sequence.

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ..........................31.5

* Pending State Chancellor's Office approval.
Workforce Skills Courses (WKFSK)

NON-CREDIT COURSES

WKFSK 801—INTRODUCTION TO WORKFORCE DEVELOPMENT SKILLS  0 UNITS
   9 Lecture Hours, 27 Lab Hours
   Training for employees on how to achieve success in any career situation. Explores elements of communication, team building, active listening and job retention skills. Open entry/open exit. Lecture. Field trips may be required. Four completions allowed.

WKFSK 810—SKILLS FOR SUCCEEDING AT A NEW JOB  0 UNITS
   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.

Zoology Courses (ZOOL)

ZOOL 101—GENERAL ZOOLOGY  4 UNITS
   36 Lecture Hours, 108 Lab Hours
   Prerequisite: BIO 101
   Principles of animal life and classification. Survey of major animal and protozoan phyla with emphasis on evolutionary relationships, structural and physiological adaptations and ecological importance. Field trips required. Lecture/Laboratory. Transfer: (CSU, UC) (CC BIOL 4) (MJC BIO 101+ BOT101+ZOOL101= CC BIO 2+4+6) General Education: (MJC-GE: A)(CSU-GE: B2, B3)(IGETC:5B, 5C)