MJC Programs
# Agricultural Business

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: 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 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

- AG 115 (1) Introduction to Agricultural Education and Careers
  
- AG 3404-0 (3) Work Experience ** (for a total of 4 units)
  
- AG 249 (3) Agriculture Internship**
  
### II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

- PLSC 200 (3, 2) Introduction to Plant Science
  
- PLSC 201 (3, 2) Introduction to Animal Science
  
- NR 200 (3, 2) Soils
  
- AGM 200 (3) Introduction to Mechanical Technology
  
### III. MAJOR REQUIRED COURSES - COMPLETE 12 UNITS

- AGEC 200 (3) Agriculture Accounting and Analysis
  
- AGEC 210 (3) Elements of Agricultural Economics
  
- AGEC 220 (3, 4) Agricultural Business Management
  
- AGEC 225 (3) Agriculture Computer Applications
  
### IV. ELECTIVE COURSES - COMPLETE 4 UNITS

Any 200 series Agricultural course with a laboratory.

No more than 1 unit in a 100 level Agriculture class.

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

**Required**
The Accounting program is an intensive study of accounting theory as it applies to contemporary business environment. Accounting is a vital element of business success. Accountants record business operations and, after analyzing company performance, make recommendations to increase efficiencies and overall company success. Beginning courses concentrate on recording, classifying, and reporting financial information resulting from business transactions. The student then learns the financial structure of business and analysis of financial information for management decision making. Double entry accounting, ledger and journal techniques and accounting cycles are emphasized. The use of computers in accounting is also an integral part of the program. Courses are offered during day and evening hours with some classes taught in a hybrid or fully online format to accommodate student schedules. 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.

**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 MUC 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**

- BUSAD 201 [2, 3] Financial Accounting ..............................................4
- BUSAD 202 [3, 4] Managerial Accounting ...........................................4
- BUSAD 203 [2, 3, 4] Computer Accounting ............................................3
- BUSAD 319 [2, 3, 4] Payroll Accounting ..............................................3
- BUSAD 336 [2, 3, 4] Tax Accounting ..................................................3

**ELECTIVE COURSES - COMPLETE A MINIMUM OF 6 UNITS**

- BUSAD 248 [1] Introduction to Business ..............................................3 OR
- BUSAD 230 [1] Personal Finance ..........................................................3
- BUSAD 301 [1] Business Computations ..............................................3
- BUSAD 310 [1] Bookkeeping 1 .............................................................3
- CSCI 201 [1] General Computer Literacy ............................................3 OR
- OFADM 256 [1] Introduction to Word Processing .................................1 AND

**TOTAL UNITS IN 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**

- BUSAD 201 [1] Financial Accounting .................................................4
- BUSAD 300 [1] Machine Calculation ..................................................2
- BUSAD 319 [2, 3] Payroll Accounting ..................................................3
- BUSAD 336 [2, 3] Tax Accounting ..........................................................3

**ELECTIVE COURSES - COMPLETE 3-4 UNITS**

- BUSAD 218 [1] Business Law ..............................................................4
- BUSAD 230 [1] Personal Finance ..........................................................3
- BUSAD 274 [1] Human Resources Management ..................................3 OR
- BUSAD 248 [1] Introduction to Business ..............................................3 OR
- BUSAD 240 [1] Principles of Management ..........................................3
- BUSAD 310 [1] Bookkeeping 1 .............................................................3
- CSCI 201 [1] General Computer Literacy ............................................3 OR
- OFADM 256 [1] Introduction to Word Processing .................................1 AND
- OFADM 259 [1] Introduction to Spreadsheet Software ........................1 AND
- OFADM 261 [1] Introduction to Databases .........................................1

**TOTAL UNITS IN CERTIFICATE OF ACHIEVEMENT AWARD ..........27 - 28**

**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. 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 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 15.5-18.5 UNITS

**ADVANCED COURSES - COMPLETE 3-5 UNITS**

- OFADM 301 [1] Beginning Keyboarding ......................................................... 1.5 OR
- OFADM 303 [1] Keyboarding for Speed and Accuracy ........................................ 0.5
- OFADM 250 [1] Introduction to Word Processing ................................................ 1 OR
- OFADM 259 [2] Introduction to Spreadsheet Software ........................................ 1 OR
- BUSAD 310 [1] Bookkeeping 1 ............................................................................ 3
- 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 ........15.5 - 18.5

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 in evidence, community relations corrections and law. Some potential careers are in the Administration of Justice field Correctional Officer, Local Police Officer, Local Deputy Sheriff, 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 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 finger prints.

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 types 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 or “P” (Pass).

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

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

LIST A: TWO COURSES - 6 UNITS

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

LIST B: TWO COURSES - MINIMUM OF 6 UNITS

Any List A Courses Not Already Used ................................................................. 3
- SOCIO 101 [NP] Introduction to Sociology ......................................................... 3
- SOCIO 105 [NP] Introduction to Statistics for the Social & Behavioral Sciences .................................................................................................................. 3
- ADUJ 145C [NP] Community Agency Fieldwork .............................................. 3
- ADUJ 205 [NP] Community Relations ............................................................... 3
- ADUJ 210 [NP] Communications in Criminal Justice ....................................... 3
- ADUJ 213 [NP] Patrol Procedures .................................................................... 3
- ADUJ 215 Introduction to Firearms ................................................................... 3
- ADUJ 216 Adv. Firearms & Range Application .................................................. 3
- ADUJ 217 [NP] Substance Abuse ..................................................................... 3
- ADUJ 222 [NP] Profiling Terrorism .................................................................. 3
- ADUJ 234 [NP] Crime Causation ..................................................................... 3
- ADUJ 243 [NP] Domestic Violence Crisis Intervention ..................................... 3

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.
A: ADMINISTRATION OF JUSTICE / AGRICULTURE BUSINESS

TOTAL UNITS REQUIRED IN A.S.-T MAJOR .................................................. 18
UNITs REQUIRED FOR CSU-GE BREADTH ................................................... 39
UNITs REQUIRED FOR IGET/CSU BREADTH .............................................. 37-39
CSU TRANSFERABLE ELECTIVES (AS NEEDED) .................................. 12-11
DOUBLE-COUNTED UNITS ................................................................. 9-6
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 MIC 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. Assess the American legal system and how it applies to today’s criminal justice profession.
2. To compose academic papers demonstrating critical thinking 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. 109) or the University Preparation Pathway (p. 103) which include completion of the requirements below.

REQUIRED COURSES – COMPLETE 18 UNITS

ADJU 201 [1] Introduction to Administration of Justice ............................................. 3
ADJU 204 [3] Legal Aspects of Evidence .............................................................. 3
ADJU 205 [1] Community Relations ................................................................. 3
ADJU 212 [4] Criminal Investigation ................................................................. 3

ELECTIVE COURSES – COMPLETE 3 UNITS

ADJU 213 [1] Patrol Procedures .......................................................................... 3
ADJU 215 [1] Introduction to Firearms ............................................................... 3
ADJU 216 [NP] Advanced Firearms & Range Application ................................. 3
ADJU 217 [2] Substance Abuse ......................................................................... 3
ADJU 222 [NP] Profiling Terrorism .................................................................... 3
ADJU 235 [1] Introduction to Corrections ........................................................... 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 ................................................................. 21

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

Agriculture Business

PROGRAM

(209) 575-6200

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. Organize and prepare reports, presentations, and other financial documents used in making farm management decisions.
2. Assess supply and demand as it relates to local and regional agriculture business industries.

PROGRAM REQUIREMENTS

To earn an Associate in Science Degree in this major, the student must complete the MIC Associate Degree Requirements detailed in the Career Technical Education Pathway (p. 109) or the University Preparation Pathway (p. 103) which includes 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 259ABCD [NP] Agricultural Work Experience .............................................. 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 ................................................................................................. 3
AGM 200 [NP] Introduction to Mechanical Technology ........................................ 3

III. MAJOR REQUIRED COURSES - COMPLETE 12 UNITS
AGEC 200 [NP] Agricultural Accounting and Analysis ...................................... 3
AGEC 210 [NP] Elements of Agricultural Economics .......................................... 3
AGEC 220 [NP] Agricultural Business Management ........................................... 3
AGEC 225 [NP] Agriculture Computer Applications ............................................ 3

IV. ELECTIVE COURSES - COMPLETE 4 UNITS
AGEC 280 [NP] Agricultural Sales and Service .................................................. 3
AGEC 215 [NP] Machinery Management ............................................................ 3
AGEC 220 [NP] Industrial/Agricultural Machinery ............................................. 3
AGEC 235 [NP] Irrigation and Drainage ............................................................... 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 214 [NP] Livestock Feeding and Nutrition ................................................ 3
ANSC 220 [NP] Dairy Industry/Dairy Science .................................................... 3
ANSC 230 [NP] Poultry Science ........................................................................ 3
EHS 210 [NP] Introduction to Environmental Horticulture Science ................. 3
EHS 280 [NP] Principles of Floral Art and Design ............................................... 3
PLSC 205 [NP] Field Crops .............................................................................. 3
PLSC 215 [NP] Vegetable Crops ........................................................................ 3
PLSC 220 [NP] Fruit Science ............................................................................ 3
PLSC 250 [NP] Plant Nutrition and Fertilizer ..................................................... 3
AG 305 [NP] Supervision in Agriculture ............................................................. 2
AG 249 [NP] Agriculture Internship .................................................................. 2
AG 101 [NP] Leadership in Agriculture ............................................................. 2

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

*Required
**Internship/Work Experience must be Agriculture related
Note: For section 1: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 259D, or a combination of AG 259A-C, or a combination of AG 249 and AG 259AB.

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. Evaluate market trends and create a marketing plan for an agricultural product or commodity.
2. Organize and prepare reports, presentations, and financial documents other information pertaining to agriculture business.
3. Create a customer profile and employ a sales strategy based on that profile

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. 109) or the University Preparation Pathway (p. 103) which include completion of the requirements below.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS
AG 115 * [1] Introduction to Agricultural Education and Careers ....................... 1
AG 249 ** [4] Agriculture Internship .................................................................. 2 OR
AG 259ABCD ** [NP] Agricultural Work Experience ...................................... 1 - 4

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS
AGM 200 [NP] Introduction to Mechanical Technology ..................................... 3
ANSC 200 [NP] Introduction to Animal Science .................................................. 3
NR 200 [NP] Soils ................................................................................................. 3
PLSC 200 [NP] Introduction to Plant Science ..................................................... 3

III. MAJOR REQUIRED COURSES - COMPLETE 12 UNITS
AGEC 200 [NP] Agricultural Accounting and Analysis ...................................... 3
AGEC 210 [NP] Elements of Agricultural Economics .......................................... 3
AGEC 215 [NP] Agricultural Marketing .............................................................. 3
AGEC 280 [1, 2] Agricultural Sales and Service .................................................. 3

IV. ELECTIVE COURSES - COMPLETE 3 UNITS
AG 280 [NP] Agricultural Computations ............................................................ 3
AG 285 [NP] Agricultural Communications ...................................................... 3
AGEC 225 [1] Agriculture Computer Applications ............................................. 3
COMM 100 [NP] Fundamentals of Public Speaking ........................................... 3 OR
COMM 102 [NP] Introduction to Human Communication ................................ 3
ANY COURSE NOT TAKEN IN CORE MAJOR OR OPTIONS.

TOTAL UNITS IN A.S. MAJOR ............................................................................. 29

*Work experience/internship must be agriculture related.
**Required
Note: For Section 1: Agriculture Career Courses, students must take AG 115. Students must complete an additional 4 units in the section by taking AG 259D, or a combination of AG 259A-C, or a combination of AG 249 and AG 259B.

CERTIFICATE OF ACHIEVEMENT: AGRICULTURE: SALES, SERVICE TECHNICIAN

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. Evaluate market trends and create a marketing plan for an agricultural product or commodity.
2. Organize and prepare reports, presentations, and financial documents pertaining to agriculture business.
3. Create a customer profile and employ a sales strategy based on that profile

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 259ABCDF [NP] Agricultural Work Experience ...................................................... 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

III. MAJOR REQUIRED COURSES - COMPLETE 18 UNITS

AGEC 200 [NP] Agricultural Accounting and Analysis .................................................. 3
AGEC 210 [NP] Elements of Agricultural Economics ................................................... 3
AGEC 215 [NP] Agricultural Marketing ........................................................................ 3
AGEC 280 [NP] Agricultural Sales and Service ............................................................ 3
COMM 102 [NP] Fundamentals of Public Speaking ....................................................... 3 OR
COMM 102 [NP] Introduction to Human Communication ........................................... 3
AG 285 [NP] Agricultural Communications ................................................................ 3

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

*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 259D, or a combination of AG 259A - C, or a combination of AG 249 and AG 259A - B.

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Agricultural Mechanics

PROGRAM (MECHANIZED AGRICULTURE)
(209) 575-6200

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.

A.S. DEGREE: MECHANIZED AGRICULTURE

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. Fabrication Option: Design and fabricate agriculture equipment effectively.
2. Fabrication Option: Select proper fabrication equipment for various construction and/or repair situations.
3. Power Option: Select proper tools and equipment for various applications, staying within the desired financial restraints.
4. Power Option: Repair basic power equipment effectively.

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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 ** [2] Agriculture Internship ........................................................................ 2 OR
AG 259ABCDF [NP] Agricultural Work Experience ...................................................... 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 ........................................................................................................ 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 12 UNITS

AGM 200 [NP] Introduction to Mechanical Technology ................................................ 3 AND
AGM 210 [NP] Agricultural Welding ........................................................................ 3 AND
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 .................................................................................. 3
AGM 241 [NP] Diesel Engine Principles .................................................................. 1
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 IN A.S. MAJOR ............................................................................ 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 259D, or a combination of AG 259A - C, or a combination of AG 249 and AG 259A - B.

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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 210 [NP] Agriculture Welding ...................................................... 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 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. Fabrication Option: Design and fabricate agriculture equipment effectively.
2. Fabrication Option: Select proper fabrication equipment for various construction and/or repair situations.
3. Power Option: Select proper tools and equipment for various applications, staying within the desired financial restraints.
4. Power Option: Repair basic power equipment effectively.

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 ** [4] Agriculture Internship ................................................................. 2 OR
AG 259ABCD (NP) Agricultural Work Experience ........................................ 1-4

II. REQUIRED COURSES FOR CERTIFICATE - COMPLETE 15 UNITS
AGM 200 Introduction to Mechanical Technology ........................................... 3
AGM 210 (NP) Agricultural Welding ................................................................. 3
AGM 215 (NP) Machinery Management ............................................................ 3
AGM 241 (NP) Diesel Engine Principles ......................................................... 3
AGM 262 (NP) Hydraulics/Pneumatics ............................................................. 3

III. ELECTIVE COURSES FOR CERTIFICATE - COMPLETE 10 UNITS
AG 280 (NP) Agricultural Computations ......................................................... 3
AG 285 (NP) Agricultural Communications ................................................... 3
AGEC 280 (NP) Agricultural Sales and Service .......................................... 1
AGM 211 (NP) Advanced Agricultural Welding ............................................ 1
AGM 214 (NP) Equipment Service and Safety .............................................. 1
AGM 225 (NP) Principles of Electrical Wiring ................................................. 3
AGM 230 (NP) Field Surveying ....................................................................... 1
AGM 241 (NP) Diesel Engine Principles ......................................................... 3
AGM 251 (NP) Farm Construction and Materials ........................................ 4
AGM 252 (NP) Farm Construction Advanced Lab ......................................... 2
AGM 289 (NP) Principles of Power Mechanics/Sm Engines ......................... 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ..................... 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 259D, or a combination of AG 259A-C, or a combination of AG 249 and AG 259A-B.

Agriculture Science
PROGRAM (209) 575-6200

A.S. DEGREE: AGRICULTURE SCIENCE

PROGRAM LEARNING OUTCOMES
Upon satisfactory completion of this award, the student should be prepared to:
1. Identify and appraise the educational requirements for career opportunities in the agriculture industry.
2. Analyze and communicate effectively core issues in the various fields of agriculture.
3. Integrate leadership aptitudes into one-on-one and group settings.

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
AG 115 * [1] Introduction to Agricultural Education & Careers ......................... 1
AG 249 ** [4] Agriculture Internship ................................................................. 2 OR
AG 259ABCD (NP) Agricultural Work Experience ........................................ 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 ...................................................................................... 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
AGM 210 (NP) Agricultural Welding ............................................................... 3
EHS 280 (NP) Principles of Floral Art and Design ........................................... 3
ANSC 201 (NP) Beef Cattle Science ................................................................ 3 OR
ANSC 202 (NP) Swine Science ...................................................................... 3 OR
ANSC 203 (NP) Sheep Science ..................................................................... 3 OR
ANSC 230 (NP) Poultry Science .................................................................... 3
EHS 210 (NP) Introduction to Environmental Horticulture Science .............. 3
PLSC 230 (NP) Fruit Science ......................................................................... 3
ANSC 220 (NP) Dairy Industry/Dairy Science ................................................. 3

IV. AGRICULTURE MAJOR ELECTIVE COURSES - COMPLETE 7 UNITS
ANY CLASS NOT USED IN AREAS II & III

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 259D, or a combination of AG 259A-C, or a combination of AG 259A-B.

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

ABOUT THIS EMPHASIS
What is the University Preparation degree? The University Preparation degree, distinctive of the University Preparation “pathway,” is designed to prepare you for transfer to a California State University (CSU) or University of California (UC) campus. While completion of this program does not guarantee admission to a specific college or university, it allows you to complete preparatory courses that may apply toward the area of study in which you plan to major at your targeted transfer university, and to complete general education requirements required by CSU and UC for bachelor’s (baccalaureate) degree. It entails an interdisciplinary approach to learning that will allow you to simultaneously meet your unique transfer goals and fulfill lower division requirements for bachelor’s degree at many CSU or UC institutions. You will do this by completing a rigorous general education experience with either the CSU-GE or IGETC general education patterns, in addition to completing an emphasis in a particular field or program. How does it work? Each emphasis has been crafted to help you prepare for upper-division coursework in a baccalaureate major at a four-year university. By fulfilling the requirements of the MUC emphasis, you will also be completing some or all lower-division preparation for baccalaureate major at the university. ASSIST (www.assist.org) is a statewide database of recorded transfer agreements between community colleges and universities. You are advised to use ASSIST in selecting courses from the emphasis to ensure that the coursework applies to your baccalaureate major. University Preparation with Emphasis Prepare for transfer with some majors at MUC. Not every program at MUC offers a degree designed for transfer-oriented students. However, many programs do
offer AA or AS majors which function like the emphasis for transfer-oriented students. Those majors are included on the following pages to help you make the right decision when determining the best transfer-oriented path of study.

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.

EMPHIS requirements

To earn an Associate Degree with this emphasis, the student must complete the requirements detailed in the University Preparation Pathway (p. 103) which include completion of the requirements below. See advisor for selection of courses.

REQUIRED COURSES - COMPLETE 12 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AGEC 210</td>
<td>Elements of Agricultural Economics</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>3</td>
</tr>
<tr>
<td>PLSC 200</td>
<td>Introduction to Plant Science</td>
<td>3</td>
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ELECTIVE COURSES - COMPLETE 6 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Units</th>
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<td>AGEC 225</td>
<td>Agriculture Computing Applications</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 280</td>
<td>Agricultural Sales and Service</td>
<td>3</td>
</tr>
<tr>
<td>AGM 200</td>
<td>Introduction to Mechanical Technology</td>
<td>3</td>
</tr>
<tr>
<td>AGM 215</td>
<td>Machinery Management</td>
<td>3</td>
</tr>
<tr>
<td>AGM 230</td>
<td>Industrial/Agricultural Machinery</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 201</td>
<td>Beef Cattle Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 202</td>
<td>Swine Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 203</td>
<td>Sheep Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 214</td>
<td>Livestock Feeding and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 215</td>
<td>Animal Health and Sanitation</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 220</td>
<td>Dairy Industry/Dairy Science</td>
<td>3</td>
</tr>
<tr>
<td>ECON 111</td>
<td>Economic Principles: Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>EHS 210</td>
<td>Introduction to Environmental Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>EHS 276</td>
<td>Landscape Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>MATH 111</td>
<td>Applied College Algebra</td>
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<td>MATH 134</td>
<td>Elementary Statistics</td>
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<td>MATH 138</td>
<td>Calculus for Business and Social Sciences</td>
<td>3</td>
</tr>
<tr>
<td>NR 220</td>
<td>Introductory Forestry</td>
<td>3</td>
</tr>
<tr>
<td>NR 222</td>
<td>Native Tree and Shrub Identification</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 205</td>
<td>Field Crops</td>
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<td>PLSC 215</td>
<td>Vegetable Crops</td>
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</tr>
<tr>
<td>PLSC 230</td>
<td>Fruit Science</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 250</td>
<td>Plant Nutrition and Fertilizer</td>
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</tr>
<tr>
<td>PLSC 260</td>
<td>Plant Disease Control</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED IN AREA OF EMPHASIS .................................. 18
A.S. DEGREE: **DAIRY SCIENCE**

**PROGRAM LEARNING OUTCOMES**

Upon satisfactory completion of this award, the student should be prepared to:
1. Describe management techniques used by the dairy industry.
2. Utilize a variety of technologies in the dairy 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 (p. 109) or the University Preparation Pathway (p. 103) 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 259 A-D [NP] Agricultural Work Experience (total of 4 units) .......... 1 - 4

II. **AGRICULTURE SCIENCE BREEDTH COURSES - COMPLETE 9 UNITS**

PLSC 200 [NP] Introduction to Plant Science ....................................... 3
NR 200 [NP] Soils .............................................................................. 3
AGM 200 [NP] Introduction to Mechanical Technology ............ 3 OR
AGEC 225 [NP] Agriculture Computer Applications ..................... 3 OR
AGEC 210 [NP] Elements of Agricultural Economics ................. 3 OR
AGEC 200 [2,3,4] Agricultural Accounting & Analysis ................. 3

III. **AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS**

ANSC 221 [NP] Dairy Cattle Selection & Evaluation ......................... 3
ANSC 224 [NP] Dairy Feeds & Feeding ................................................ 3
ANSC 226 [NP] Dairy Breeding & Selection ....................................... 3

IV. **AGRICULTURE MAJOR ELECTIVES - COMPLETE 7 UNITS**

ANSC 215 [NP] Animal Health and Sanitation .................................... 3
ANSC 217 [NP] Advanced Breeding & Artificial Insemination .......... 4
ANSC 222 [NP] Milk Production & Technology ................................. 3
ANSC 227 [NP] Advanced Dairy Cattle Selection & Evaluation ........ 3
ANSC 228 [NP] Dairy Management .................................................... 3
ANY 200 SERIES AGRICULTURE COURSE NOT TAKEN ABOVE ......... 3
1 UNIT MAXIMUM FROM ANY 300 SERIES AGRICULTURE COURSE ...... 1

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

**Note:**

**Required**

**Internship/Work Experience must be Agriculture related.

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 259 A-D [NP] Agricultural Work Experience (total of 4 units) .......... 1 - 4

II. **AGRICULTURE SCIENCE BREEDTH COURSES - COMPLETE 9 UNITS**

PLSC 200 [NP] Introduction to Plant Science ....................................... 3
ANSC 200 [NP] Introduction to Animal Science .................................. 3
NR 200 [NP] Soils .............................................................................. 3
AGM 200 [NP] Introduction to Mechanical Technology ............ 3 OR
AGEC 225 [NP] Agriculture Computer Applications ..................... 3 OR
AGEC 210 [NP] Elements of Agricultural Economics ................. 3 OR
AGEC 200 [NP] Agricultural Accounting & 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 235 [NP] Poultry Diseases and Housing ................................. 3 OR
ANSC 215 [NP] Animal Health and Sanitation ......................... 3 OR
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 BREEDTH CORE
NO MORE THAN TWO UNITS OF 300 LEVEL AGRICULTURE CLASSES

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

**Note:**

**Required**

**Internship/Work Experience must be Agriculture related.

**CERTIFICATE OF ACHIEVEMENT: ARTIFICIAL INSEMINATION TECHNICIAN**

The student will develop skills and knowledge sufficient enough to collect bull semen, artificially inseminate cows, and to evaluate pedigrees. The student will also develop skills in basic salesmanship. 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. Give specific examples of careers in the artificial insemination industry.
2. Describe technologies used in the artificial insemination 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.
I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

AG 115 * [1] Introduction to Agricultural Education & Careers .............................................. 1
AG 249 ** [2] Agriculture Internship ................................................................................... 2 OR
AG 259A/BCD (NP) Agricultural Work Experience .................................................................. 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 FOR CERTIFICATE OF ACHIEVEMENT AWARD .................................. 17

*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 259D, or a combination of AG 259A-C, or a combination of AG 249 and AG 259A-B.

CERTIFICATE OF ACHIEVEMENT: EQUINE SCIENCE

This program will develop entry-level jobs skills in equine husbandry and housing. Training and skill set development include: practical handling and safety skills, equipment handling and care, equine anatomy and nutrition, as well as breeding and reproduction skills. The program is designed for students that wish to develop practical skills in the area of equine science.

PROGRAM LEARNING OUTCOMES

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

1. Design and implement a complete nutritional program for equines in various life stages.
2. Demonstrate advanced equine handling skills.
3. Describe current trends in equine reproduction, mare and foal care.
4. Demonstrate competent riding skills in various situations using various disciplines.
5. Using current equine industry standards, demonstrate management skills in the operation of an equine facility.
6. Describe ideal equine conformation and subsequent ailments associated with deviations from such conformation.

PROGRAM REQUIREMENTS

To earn a Certificate of Achievement in Equine Science, the student must complete a minimum of 16 units of course work. Each course must be completed with a “C” or better.

REQUIRED COURSES: COMPLETE 14 UNITS

ANSC 207 [1] Equine Science ................................................................................................. 3
ANSC 243 [2] Equine Fitting and Showing ............................................................................. 2

ANSC 258 [1] Beginning Horsemanship ................................................................................. 3
ANSC 265 [1] Introduction to Colt Training ............................................................................ 3

ELECTIVE COURSES - CHOOSE ONE COURSE:

ANSC 200 [1] Introduction to Animal Science ....................................................................... 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ........................... 16 - 17

*Pending ACCC Approval

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.

REQUIRED COURSES – COMPLETE 17 UNITS

ANSC 251 [3] Veterinary Pharmacy Procedures ..................................................................... 2
ANSC 253 (NP) Veterinary Laboratory Procedures ................................................................ 1
ANSC 254 [4] Veterinary Medical Office Procedures .......................................................... 2
ANSC 255 [3] Preparation for Surgical and Dental Assistance .............................................. 3
ANSC 256 [3] Veterinary Assistance and Nursing: Emergency Procedures ......................... 1

ELECTIVE COURSES – (NOT REQUIRED FOR CERTIFICATE)

BIO 111 (NP) General Biology .............................................................................................. 4
ANSC 55 (NP) Introduction to Veterinary Technology .......................................................... 3
ANSC 200 (NP) Intro to Animal Science (Large animal oriented) ......................................... 3
ANSC 215 (NP) Animal Health & Sanitation (Large animal oriented) .................................. 3

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.
A.A.-T DEGREE: ANTHROPOLOGY

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 or to a university or college that is not CSU-transferable may 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 planning to complete a bachelor's degree in Studio Arts at a CSU campus. Units after transfer to earn a bachelor's degree in Studio Arts 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 planning to complete a bachelor's degree in Studio Arts at a CSU campus.

Students completing this degree are guaranteed admission to 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 A.A. 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 or "P" (Pass) 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)

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

LIST A: (4 UNITS)

ANTHR 104 [NP] Linguistic Anthropology .............................................................. 3
ANTHR 105 [NP] Biological Anthropology Lab ...................................................... 1
MATH 134 [NP] Elementary Statistics .................................................................... 4

LIST B: SELECT ONE TO TWO (3-4 UNITS)

ANY LIST A COURSE NOT ALREADY USED ..................................................... 3-4

AREA 1: SCIENCE METHODS

PHIL 107 [NP] Philosophy of Science .................................................................. 3
PSYCH 102 [NP] Research Methods ................................................................... 3

AREA 2: SCIENCES

ANAT 125 [NP] Human Anatomy ....................................................................... 4
E ASCI 161 [NP] Earth Science ........................................................................... 4
GEO 161 [NP] Physical Geology ................................................................. 4

LIST C: 3 UNITS

ANY LIST A OR B COURSE NOT ALREADY USED ......................................... 3
ANTHR 107 [NP] Forensic Anthropology Introduction ........................................ 3
ANTHR 140 [NP] Magic, Witchcraft, and Religion .............................................. 3
ANTHR 150 [NP] Native Peoples of North America ............................................ 3
ANTHR 174 [NP] Anthropology Summer Field Studies .................................... 3

TOTAL UNITS REQUIRED IN A.A.-T MAJOR ............................................. 19-24

TOTAL UNITS THAT MAY BE DOUBLE COUNTED ...................................... 20-22
UNITS REQUIRED FOR IGETC/CSU BREADTH ......................................... 37-39
ELECTIVES (AS NEEDED) .............................................................................. 20-26

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.

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 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.
A: ART

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 and how man expresses himself through these works.
3. Demonstrate and understand the chronological and 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 art 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).

REQUIRED CORE: (COMPLETE 9 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 120 [1] Basic Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 164 [1] History of Art 1</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST A: (3 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 169 [NP] Survey of Asian Art</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST B: (SELECT ONE: 3 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 102 [NP] Introduction to Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ART 108 [NP] Ceramics 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 123 [NP] Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 124 [NP] Color and 2-D Foundation Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 125 [NP] Color and 3-D Foundation Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 140 [NP] Sculpture 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 147 [NP] Painting 1 (in Acrylic)</td>
<td>3</td>
</tr>
<tr>
<td>ART 148 [NP] Painting 1 (in Oil)</td>
<td>3</td>
</tr>
<tr>
<td>ART 170 [NP] Basic Photography 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 173 [NP] Basic Digital Photography</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST C: (SELECT ONE: 3-5 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANY COURSE FROM LIST A OR B NOT ALREADY USED</td>
<td>3</td>
</tr>
<tr>
<td>ART 162 [NP] History of Renaissance Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 163 [NP] History of Modern Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 168 [NP] Survey of Photography</td>
<td>3</td>
</tr>
<tr>
<td>FREN 101 [NP] French 1</td>
<td>5</td>
</tr>
<tr>
<td>GERM 101 [NP] German 1</td>
<td>5</td>
</tr>
<tr>
<td>ITAL 101 [NP] Italian 1</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 101 [NP] Spanish 1</td>
<td>5</td>
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</tbody>
</table>

TOTAL UNITS REQUIRED IN A.A.-T MAJOR          18-20

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL UNITS THAT MAY BE DOUBLE-COUNTED</td>
<td>6-9</td>
</tr>
<tr>
<td>UNITS REQUIRED FOR IGETC/CSU-GE BREADTH</td>
<td>37-39</td>
</tr>
<tr>
<td>CSU TRANSFERABLE ELECTIVES (AS NEEDED)</td>
<td>9-12</td>
</tr>
</tbody>
</table>

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.

A.A.-T DEGREE: STUDIO ARTS

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 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 A.A. DEGREE IN STUDIO ARTS FOR TRANSFER:

(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.

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 and trends of contemporary practice.

REQUIRED CORE: (12 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 120 [1] Basic Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 124 [1] Color and 2-D Foundation Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 125 [2] Color and 3-D Foundation Design</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST A: (3 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 163 [NP] History of Modern Art</td>
<td>3</td>
</tr>
</tbody>
</table>

162
LIST B: (9 UNITS)
ART 123 (NP) Figure Drawing .................................................. 3 OR
ART 121 (NP) Basic Drawing ....................................................... 3
ART 147 (NP) Painting 1 (in Acrylic) ....................................... 3
ART 148 (NP) Painting 1 (in Oil) ............................................. 3
ART 108 (NP) Ceramics 1 ......................................................... 3
ART 140 (NP) Sculpture 1 ......................................................... 3
ART 102 (NP) Introduction to Computer Graphics .................. 3
ART 170 (NP) Basic Photography .............................................. 3
ART 173 (NP) Basic Digital Photography .................................... 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.

A.A. DEGREE: ART

The comprehensive MJC Art Program offers several areas of concentration: art history, ceramics, computer graphics, drawing, design, sculpture, watercolor 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 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. 109) or the University Preparation Pathway (p. 103) 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 ....................................................... 3
ART 164 (NP) History of Art .................................................. 3
ART 165 (NP) History of Art .................................................. 3

ELECTIVE COURSES - COMPLETE 11 UNITS, WITH NO MORE THAN 1 COURSE IN EACH AREA
DESIGN AND DRAWING AREA
ART 121 [2] Basic Drawing ....................................................... 3

A.S. DEGREE: ATHLETIC TRAINING/SPORTS MEDICINE

PROGRAM LEARNING OUTCOMES

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

1. Successfully transfer to a four (4) year degree program.
2. Apply critical thinking to design and monitor preventive and rehabilitative plans, as well as provide emergency care.
3. Successfully perform NATA competencies, and be well versed in NATA perspectives, current research, and procedures.
4. Comply with degree related institutional GELOs.
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 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. 109) or the University Preparation Pathway (p. 103) which include completion of the requirements below.

**REQUIRED COURSES - COMPLETE 22 UNITS**

- AUBDY 301 [1] Automotive Collision Repair 1 ....................................................... 4
- AUBDY 321 [1] Automotive Spray Refinishing 1 .................................................... 3
- AUBDY 322 [2] Automotive Spray Refinishing 2 .................................................... 4

**TOTAL UNITS IN A.S. MAJOR ................................................................. 22**

**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 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.

**CERTIFICATE OF ACHIEVEMENT: AUTOBODY/REFINISHING**

**PROGRAM REQUIREMENTS**

To earn a Certificate of Achievement, the student must be prepared to:

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

**PROGRAM REQUIREMENTS**

To earn an Associate in Science degree in this major, the student must complete the requirements detailed in the Athletic Training/Sports Medicine Pathway, which include completion of the requirements below. Courses should be selected with the assistance of an Athletic Training faculty adviser.

**REQUIRED COURSES - COMPLETE 29 UNITS**

- PE 108 Care and Prevention of Athletic Injuries ..................................................... 3
- PE 111 Application of Sports Medicine ................................................................. 3
- PE 141 Supervision in Athletic Training ............................................................... 2
- ANAT 125 Human Anatomy .................................................................................. 4
- CHEM 143 Introductory College Chemistry ......................................................... 4
- HE 101 Emergency Medical Response; CPR/PRO/Healthcare Provider ............ 3
- HE 110 Healthful Living ....................................................................................... 3
- PHYS 101 Introductory Human Physiology ......................................................... 4
- PSYCH 101 General Psychology .......................................................................... 3

**TOTAL UNITS A.S. MAJOR ........................................................................ 29**

**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 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. 109) or the University Preparation Pathway (p. 103) which include completion of the requirements below.

**REQUIRED COURSES - COMPLETE 22 UNITS**

- AUBDY 301 [1] Automotive Collision Repair 1 ....................................................... 4
- AUBDY 303 [3,4] Automotive Collision Repair 3 .................................................... 4
- AUBDY 321 [1,2] Automotive Spray Refinishing 1 ................................................ 3
- AUBDY 322 [2,3,4] Automotive Spray Refinishing 2 ............................................. 4

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

**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 REQUIREMENTS**

To earn a Certificate of Achievement, the student should be prepared to:

1. Comply with current Auto Body industry safety and environmental standards.
2. Perform Auto Body repairs in accordance with industry standards.
PROGRAM REQUIREMENTS
To earn a Skills Recognition Award in Auto Body Refinishing, student must complete 13 units required with a grade of C or better.

REQUIRED COURSES - COMPLETE 11 UNITS
AUBDY 301 [1] Automotive Collision Repair 1 ........................................4
AUBDY 321 [1] Automotive Spray Refinishing 1 ......................................3
AUBDY 322 [2] Automotive Spray Refinishing 2 ......................................4
TOTAL UNITS FOR SKILLS RECOGNITION AWARD ..........................11

Automotive Technology
PROGRAM
(209) 575-6332

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.

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
AUTE 311 [1] Basic Automotive Systems ..................................................4
AUTE 368 [1, 2] A6: Automotive Electricity/Electronic Systems 1 ...............3.5
AUTE 369 [2, 3] A6: Automotive Electricity 2 ..............................................4

ELECTIVE COURSES: COMPLETE 18 UNITS
AUTE 211 [2, 3] Introduction to Alternative Fuels and Advanced Technology Vehicles ...3
AUTE 319 [2, 3] A8: Engine Performance ..................................................3.5
AUTE 320 [3, 4] L1: Advance Engine Performance .....................................4
AUTE 322 [2] A4: Steering, Suspension and Align ....................................3.5

TOTAL UNITS IN A.S. MAJOR ......................................................32.5

CERTIFICATE OF ACHIEVEMENT: AUTOMOTIVE BRAKES AND SUSPENSION

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 to vehicle braking and suspension systems in accordance with ASE 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 17.5 UNITS
AUTE 311 [1] Basic Automotive Systems ..................................................4
AUTE 368 [1, 2] A6: Automotive Electricity/Electronic Systems 1 ...............3.5
AUTE 322 [2] A4: Steering, Suspension and Align ....................................3.5

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .............17.5
CERTIFICATE OF ACHIEVEMENT: AUTOMOTIVE DIAGNOSIS

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 program, the student should be prepared to:
1. Demonstrate compliance with current automotive safety and environmental standards.
2. Diagnose and repair automotive drivability problems in accordance with ASE 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 27 UNITS
- AUTEC 311 [1] Basic Automotive Systems .......................... 4
- AUTEC 211 [2] Intro to Alternative Fuels and Advanced Technology Vehicles ..................3
- AUTEC 373 [3] Clean Air Car Course .......................................................... 5

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

CERTIFICATE OF ACHIEVEMENT: AUTOMOTIVE SERVICE

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 program, the student should be prepared to:
1. Demonstrate compliance with current automotive industry safety and environmental standards.
2. Perform routine vehicle service operations in accordance with ASE 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 27 UNITS
- AUTEC 200 [1] Automotive Service Management ........................................ 3
- AUTEC 311 [1] Basic Automotive Systems ................................................. 4
- AUTEC 368 [1, 2] A6: Automotive Electricity/Electronic Systems 1 .......................... 3.5

ELECTIVE COURSES: COMPLETE 21 UNITS
- AUTEC 317 [2, 3] Auto Heating & Air Conditioning ........................................ 3.5
- AUTEC 322 [2, 3] A4: Steering, Suspension and Align .................................... 3.5
- AUTEC 369 [2, 3] A6: Automotive Electricity 2 .............................................. 4

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ........................ 31.5
A.S. DEGREE: UNIVERSITY PREPARATION, EMPHASIS IN BIOLOGICAL SCIENCES

ABOUT THIS EMPHASIS

What is the University Preparation degree? The University Preparation degree, distinctive of the University Preparation "pathway," is designed to prepare you for transfer to a California State University (CSU) or University of California (UC) campus. While completion of this program does not guarantee admission to a specific college or university, it allows you to complete preparatory courses that may apply toward the area of study in which you plan to major at your targeted transfer university, and to complete general education requirements required by CSU and UC for bachelor's (baccalaureate) degree. It entails an interdisciplinary approach to learning that will allow you to simultaneously meet your unique transfer goals and fulfill lower division requirements for bachelor's degree at many CSU or UC institutions. You will do this by completing a rigorous general education experience with either the CSU-GE or IGETC general education patterns, in addition to completing an emphasis in a particular field or program. How does it work? Each emphasis has been crafted to help you prepare for upper-division coursework in a baccalaureate major at a four-year university. By fulfilling the requirements of the MJ emphasis, you will also be completing some or all lower-division preparation for baccalaureate major at the university. ASSIST (www.assist.org) is a statewide database of recorded transfer agreements between community colleges and universities. You are advised to use ASSIST in selecting courses from the emphasis to ensure that the coursework applies to your baccalaureate major. University Preparation with Emphasis Prepare for transfer with some majors at MJC Not every program at MJC offers a degree designed for transfer-oriented students. However, many programs do offer AA or AS majors which function like the emphasis for transfer-oriented students. Those majors are included on the following pages to help you make the right decision when determining the best transfer-oriented path of study.

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.

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 or the University Preparation Pathway (p. 103) which include completion of the requirements below. See counselor or advisor for selection of courses.

REQUIRED COURSES – TAKE 12 UNITS

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

ELECTIVE COURSES – TAKE 9-10 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 Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 101 [NP]</td>
<td>General Chemistry 1</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 102 [NP]</td>
<td>General Chemistry 2</td>
<td>5</td>
</tr>
<tr>
<td>MATH 134 [NP]</td>
<td>Elementary Statistics</td>
<td>4</td>
</tr>
<tr>
<td>MATH 171 [NP]</td>
<td>Calculus: First Course</td>
<td>5</td>
</tr>
<tr>
<td>MATH 172 [NP]</td>
<td>Calculus; Second Course</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 142 [NP]</td>
<td>Mechanics, Heat, and Waves</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 143 [NP]</td>
<td>Electricity, Magnetism, Optics, Atomic and Nuclear Structure</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED IN AREA OF EMPHASIS ..................................................................21-22

Bookkeeping

PROGRAM (209) 575-6129

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.

A.S. DEGREE: 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 an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 109) or the University Preparation Pathway (p. 103) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 22 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAD 310 [T]</td>
<td>Bookkeeping 1</td>
<td>3</td>
</tr>
</tbody>
</table>
BUSAD 320 [2] Bookkeeping 2 .................................................................3
BUSAD 303 [3-4] Computer Accounting ..................................................3
BUSAD 319 [3-4] Payroll Accounting ......................................................3
BUSAD 336 [3-4] Tax Accounting .............................................................3

**ELECTIVE COURSES - COMPLETE 6 UNITS**

OFADM 203 [2] Intermediate Keyboarding 3 .........................................3
OFADM 305 [2] Records Management ....................................................3
BUSAD 240 [2] Principles of Management ................................................3 OR
BUSAD 248 [2] Introduction to Business ..................................................3

**TOTAL UNITS IN A.S. MAJOR.......................................................28**

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**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**

BUSAD 310 [1] Bookkeeping 1 .................................................................3
BUSAD 320 [2] Bookkeeping 2 .................................................................3
BUSAD 300 [1] Machine Calculation ......................................................2
BUSAD 50 [1] Business Computations ....................................................3
BUSAD 319 [3-4] Payroll Accounting ......................................................3
BUSAD 336 [1,2] Tax Accounting .............................................................3

**ELECTIVE COURSES - COMPLETE 3 UNITS**

OFADM 203 [1] Intermediate Keyboarding 3 .........................................3
OFADM 305 [1] Records Management ....................................................3
BUSAD 210 [1] Business Communication ..............................................3
BUSAD 230 [1] Personal Finance ..........................................................3
BUSAD 240 [1] Principles of Management ................................................3
BUSAD 248 [1] Introduction to Business ..................................................3
BUSAD 274 [1] Human Resources Management .....................................3

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ..................25**

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**Business Administration Program**

(209) 575-6129

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.

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B: BUSINESS ADMINISTRATION

3. Demonstrate the ability to recognize and analyze ethical issues as they apply to the business environment.
4. Demonstrate an understanding of business terminology.

THE FOLLOWING IS REQUIRED FOR THE ASSOCIATE IN SCIENCE IN BUSINESS ADMINISTRATION 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: (18 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 101 [1] Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 102 [2] Principles of Microeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST A: COMPLETE 1 COURSE (3-4 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 134 [2,3,4] Elementary Statistics</td>
<td>4</td>
</tr>
<tr>
<td>MATH 130 [2,3,4] Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 138 [2,3,4] Calculus for Business &amp; Social Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST B: SELECT TWO COURSES

- Any list A course not used above | 3 |
- CSCI 201 [1] Computer Literacy | 3 |
- BUSD 248 [1] Introduction to Business | 3 OR |
- BUSD 210 [3,4] Business Communication | 3 |

TOTAL UNITS REQUIRED IN A.S.-T MAJOR ...........................................27-28

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

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 Business Administration for Transfer degree. ADTs also require that students must earn a C or better or a "P" (Pass) in all courses required for the major or area of emphasis.

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.

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 101 [1] Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 102 [2] Principles of Microeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES – COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSD 240 [1] Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSD 245 [2] Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUSD 248 [1] Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSD 249 ABCD [4] Business Internship</td>
<td>1-4</td>
</tr>
<tr>
<td>BUSD 208 [3] Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 201 [1] General Computer Literacy</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS IN A.S. MAJOR .............................................................................27
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, 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 nonprofit 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. 109) or the University Preparation Pathway (p. 103) which include completion of the requirements below.

**REQUIRED COURSES: COMPLETE 20 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAD 240</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 210</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 201</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSAD 218</td>
<td>Business Law</td>
<td>4</td>
</tr>
<tr>
<td>BUSAD 274</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>CSI 201</td>
<td>General Computer Literacy</td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES: COMPLETE 8-10 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAD 245</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 215</td>
<td>Business Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CSI 220</td>
<td>Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 208</td>
<td>Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 209</td>
<td>Import/Export Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 364</td>
<td>Total Quality Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS IN A.S. MAJOR** 28-30

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**Chemistry**

**PROGRAM**

(209) 575-6173

**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.

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 counselor or advisor for selection of courses.

**REQUIRED COURSES – COMPLETE 10 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 101 [NP]</td>
<td>General Chemistry 1</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 102 [NP]</td>
<td>General Chemistry 2</td>
<td>5</td>
</tr>
</tbody>
</table>

**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</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 112 [NP]</td>
<td>Organic Chemistry 1</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 113 [NP]</td>
<td>Organic Chemistry 2</td>
<td>5</td>
</tr>
<tr>
<td>MATH 171 [NP]</td>
<td>Calculus: First Course</td>
<td>5</td>
</tr>
<tr>
<td>MATH 172 [NP]</td>
<td>Calculus: Second Course</td>
<td>5</td>
</tr>
<tr>
<td>MATH 173 [NP]</td>
<td>Calculus: Third Course</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 142 [NP]</td>
<td>Mechanics, Heat, and Waves</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 143 [NP]</td>
<td>Electricity, Magnetism, Optics, Atomic and Nuclear Structure</td>
<td>4</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED IN AREA OF EMPHASIS** 20
A.A. DEGREE: CHEMICAL DEPENDENCY COUNSELING

PROGRAM LEARNING OUTCOMES

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

1. Demonstrate an understanding of chemical dependency, family systems, and the application of the code of ethics as it relates to chemical dependency counseling.
2. Exhibit effective, communication, body language, and written abilities.
3. Demonstrate an understanding of addiction, biology, psychoactive substances, co-occurring disorders, 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 a basic assessment, interview, intervention, referral, individual counseling, and group session with individuals that are chemically dependent.

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 109) or the University Preparation Pathway (p. 103) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 36 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>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 117</td>
<td>Counseling in Chemical Dependency</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 116</td>
<td>Drugs and Alcohol in Society</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 117</td>
<td>Intervention, Treatment Strategies in Chemical Dependency</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 118</td>
<td>Pharmacology of Abused Substances</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 120</td>
<td>Professional Development in the Helping Professions</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 144</td>
<td>Community Agency Practicum Discussion</td>
<td>1</td>
</tr>
<tr>
<td>HUMSR 145ABD</td>
<td>Community Agency Practicum</td>
<td>1.4</td>
</tr>
<tr>
<td>HUMSR 110</td>
<td>Intro to Interviewing, Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 113</td>
<td>Co-Occurring Disorders</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 119</td>
<td>Intro Grp Ldrship/Grp Process</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 142</td>
<td>Introduction to Psychosocial Rehabilitation</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 143</td>
<td>Psychosocial Rehabilitation Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS IN A.A. MAJOR: 36

*Student must take HUMSR 145A, B, or D to achieve at least 6 units.

C: CHEMICAL DEPENDENCY COUNSELING / CHILD DEVELOPMENT

Chemical Dependency Counseling PROGRAM (209) 575-6129

Child Development PROGRAM (209) 575-6343

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 Commission on Teacher Credentialing (Title 5), the California Department of Social Services (DSS Title 22), and the Early Intervention Certificates 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.-T DEGREE: EARLY CHILDHOOD EDUCATION

The Associate in Science in Early Childhood Education for Transfer (AS-T in Early Childhood Education) degree includes lower division coursework that is required for transfer and will provide students with the opportunity to learn valuable skills in creating culturally relevant, inclusive, age-appropriate, anti-bias environments and promote optimum care and learning opportunities. The Associate in Science in Early Childhood Education for Transfer (AS-T in Early Childhood Education) includes courses that are both theoretical and practical, including topics such as curriculum development, program planning, and child growth and development from conception through adolescence.

The Associate in Science in Early Childhood Education for Transfer (AS-T in Early Childhood Education) degree is intended for students who plan to complete a bachelor’s degree in Early Childhood Education 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.

THE FOLLOWING IS REQUIRED FOR THE ASSOCIATE IN SCIENCE IN EARLY CHILDHOOD EDUCATION FOR TRANSFER (AS-T IN EARLY CHILDHOOD EDUCATION) 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 or "P" (Pass).

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

1. Integrate understanding of the needs, characteristics, and multiple influences on development of children birth to age eight as related to the 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 profession.

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 109) or the University Preparation Pathway (p. 103) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 33 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CILD 101</td>
<td>Principles and Practices of Teaching Young Children</td>
<td>3</td>
</tr>
<tr>
<td>CILD 103</td>
<td>Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>CILD 107</td>
<td>Introduction to Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>CILD 109</td>
<td>Child-Family-Community</td>
<td>3</td>
</tr>
<tr>
<td>CILD 111</td>
<td>Health, Safety, and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>CILD 112</td>
<td>Observation and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>CILD 123</td>
<td>Infant and Toddler Practicum</td>
<td>3 OR</td>
</tr>
<tr>
<td>CILD 127</td>
<td>Preschool Practicum</td>
<td>3</td>
</tr>
<tr>
<td>CILD 163</td>
<td>Curriculum and Strategies for Children with Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>CILD 167</td>
<td>Observation and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>CILD 262</td>
<td>Diversity in Educational Settings</td>
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</table>

TOTAL UNITS IN AS. MAJOR .................................................... 33

CERTIFICATE OF ACHIEVEMENT: ASSOCIATE 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. 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.
2. Apply effective guidance and interaction strategies that support all children’s social learning, identity, and self-confidence.

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

REQUIRED COURSES - COMPLETE 12 UNITS

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<td>CILD 103</td>
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<td>CILD 107</td>
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<tr>
<td>CILD 109</td>
<td>Child-Family-Community</td>
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</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .................. 12
CERTIFICATE OF ACHIEVEMENT: EARLY INTERVENTIONIST

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 Interventionist 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

- CLDDV 103 (NP) Child Growth and Development ......................................................... 3
- CLDDV 109 (NP) Child-Family-Community ..................................................................... 3
- CLDDV 121 (NP) Guidance of Young Children ................................................................. 3
- CLDDV 125 (NP) Infant and Toddler Development and Care .............................................. 3 OR
- CLDDV 128 (3) Infant/Toddler Practicum ...................................................................... 3 OR
- CLDDV 128 (3) Preschool Practicum ............................................................................ 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 (3) Observation and Assessment ................................................................... 3

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

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

- CLDDV 101 (1) Principles and Practices of Teaching Young Children ................................. 3
- CLDDV 103 (1) Child Growth and Development ................................................................. 3
- CLDDV 107 (1) Introduction to Curriculum ......................................................................... 3
- CLDDV 109 (1) Child-Family-Community ....................................................................... 3
- CLDDV 127 (1) Infant and Toddler Practicum .................................................................... 3 OR
- CLDDV 128 (3) Preschool Practicum .............................................................................. 3
- CLDDV 154 (3) Adult Relationships & Mentoring in Schools ............................................ 2

ELECTIVES - COMPLETE 9 UNITS

- CLDDV 111 (2) Health, Safety, and Nutrition .................................................................... 3
- CLDDV 121 (2) Guidance of Young Children ..................................................................... 3
- CLDDV 125 (2) Infant and Toddler Development and Care ............................................... 3
- CLDDV 163 (4) Curriculum And Strategies For Children With Special Needs .................... 3
- CLDDV 167 (4) Observation and Assessment ..................................................................... 3
- CLDDV 262 (4) Diversity in Educational Settings ............................................................... 3

SELECT ONE 6-UNIT SPECIALIZATION OPTION FROM THE FOLLOWING:

CHOICE OF ONE OF THE FOLLOWING OPTIONS: EARLY INTERVENTION OPTION - COMPLETE 6 UNITS

- CLDDV 163 (NP) Curriculum And Strategies For Children With Special Needs .................. 3
- CLDDV 167 (NP) Observation and Assessment ..................................................................... 3 OR
- CLDDV 160 (NP) Introduction to Children with Special Needs ........................................... 3

INFANT/TODDLER OPTION - COMPLETE 6 UNITS

- CLDDV 125 (NP) Infant and Toddler Development and Care .............................................. 3
- CLDDV 127 (NP) Infant/Toddler Practicum ...................................................................... 3
- CLDDV 122 (NP) Care and Education for Infants and Toddlers ......................................... 3

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 must have completed CLDDV 154, including the Infant/Toddler or Inclusion lab practicum to 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.
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

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</tr>
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<td>CLDDV 127</td>
<td>Infant/Toddler Practicum</td>
<td>3 OR</td>
</tr>
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<td>CLDDV 128</td>
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<td>CLDDV 150</td>
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<td>CLDDV 151</td>
<td>Supervision in Children's Programs</td>
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<tr>
<td>CLDDV 154</td>
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Elective Courses: Complete 9 Units

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
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<td>CLDDV 163</td>
<td>Curriculum And Strategies For Children With Special Needs</td>
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<td>CLDDV 167</td>
<td>Observation and Assessment</td>
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</tr>
<tr>
<td>CLDDV 262</td>
<td>Diversity in Educational Settings</td>
<td>3</td>
</tr>
</tbody>
</table>

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. 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 in early care and education settings.

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

<table>
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<tr>
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<td>CLDDV 154</td>
<td>Adult Relationships &amp; Mentoring in School</td>
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Elective Courses - Complete 6 Units

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

Total Units for Certificate of Achievement Award: 24

Clerical Program

(209) 575-6129

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 business offices, 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 business offices, 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 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

<table>
<thead>
<tr>
<th>Course</th>
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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 business offices, 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .................. 30

Communication Studies
PROGRAM
(209) 575-6081

The Communication Studies Program at Modesto Junior College offers students a variety of courses which incorporate both theory and performance instruction. These include public speaking, argumentation and debate, organizational communication, intercultural and interpersonal communication, contest speaking and forensics competition which includes debate and individual events. The MJC Forensics Team has captured a number of state and national championships. 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 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. 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.

(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 a minimum grade point average of 2.0.*

ADS 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.

To earn an Associate in Arts Degree for the 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

COMM 100 [1] Fundamentals of Public Speaking ....................................................... 3

LIST A (SELECT TWO) - COMPLETE 6 UNITS

COMM 104 [NP] Argumentation .............................................................................. 3 OR
COMM 107 [NP] Introduction to Debate .................................................................. 3
COMM 103 [NP] Interpersonal Communication ................................................... 3
COMM 106 [NP] Group & Organizational Communication .................................... 3

LIST B (SELECT TWO) - COMPLETE 6 UNITS

Any List A course not used above. .............................................................................. 3
COMM 102 [NP] Introduction to Human Communication ...................................... 3
COMM 105 [2, 3, 4] Intercollegiate Forensics ......................................................... 3
COMM 110 [NP] Persuasion ..................................................................................... 3
COMM 120 [NP] Oral Interpretation ........................................................................ 3
COMM 120 [NP] Intercollegiate Forensics .............................................................. 3
COMM 130 [NP] Intercollegiate Forensics .............................................................. 3
Up to 3 units in Forensics may be counted for list B

LIST C (SELECT ONE) - COMPLETE 3 UNITS

Any List A or List B course not used above. ............................................................... 3
COMM 122 [NP] Introduction to Readers’ Theatre .................................................. 3
COMM 123 [NP] Storytelling ................................................................................... 3
COMM 124 [2, 3, 4] Advanced Readers’ Theatre .................................................... 3

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 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 Communication Studies for Transfer degree.

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. The MJC Forensics Team has captured a number of state and national championships. Most courses are available to students in both day and evening hours.

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 Degree, the student must complete the requirements detailed in the University Preparation Pathway which include completion of the requirements below. Student should consult with a Speech Communication advisor for selection of Elective Units.

REQUIRED COURSES - COMPLETE 6 UNITS

COMM 100 [1] Fundamentals of Public Speaking ....................................................... 3 OR
COMM 102 [1] Introduction to Human Communication ......................................... 3
COMM 104 [NP] Argumentation .............................................................................. 3 OR
COMM 107 [1] Introduction to Debate .................................................................. 3

ELECTIVE COURSES - COMPLETE 15 UNITS

COMM 103 [2, 3, 4] Intercollegiate Forensics ......................................................... 3
COMM 105 [NP] Intercollegiate Forensics .............................................................. 3
COMM 106 [3, 4] Group & Organizational Communication .................................... 3
COMM 110 [NP] Persuasion ..................................................................................... 3
COMM 120 [NP] Oral Interpretation ........................................................................ 3
COMM 122 [NP] Introduction to Readers’ Theatre .................................................. 3
COMM 123 [NP] Storytelling ................................................................................... 3
COMM 124 [2, 3, 4] Advanced Readers’ Theatre .................................................... 3
COMM 130 [2, 3, 4] Intercollegiate Forensics .............................................................. 3
COMM 133 [2, 3, 4] Intercollegiate Forensics .............................................................. 3
COMM 145 [NP] Parliamentary Procedure ............................................................ 1
COMM 180AB [NP] Communication Studies Lab Tutoring 1 ................................ 1-2

TOTAL UNITS IN A.A. MAJOR ........................................................... 21
CERTIFICATE OF ACHIEVEMENT: COMMUNICATION STUDIES

The Certificate of Achievement in Communication Studies is designed to enhance a student’s ability to communicate in academic and professional settings. This certificate is intended to improve the communication skills of students from all majors and career plans. Students majoring in fields that require strong communication skills may use certification in Communication Studies as an alternative to completing a Communication Studies degree.

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.

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 or “P” (Pass).

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

PROFESSIONAL SKILLS AREA - COMPLETE 3 UNITS

- COMM 103 [NP] Interpersonal Communication ....................................................... 3
- COMM 130 [NP] Intercultural Communication ......................................................... 3

GROUP AND ORGANIZATIONAL COMMUNICATION AREA - COMPLETE 3 UNITS

- COMM 106 [NP] Group & Organizational Communication ........................................... 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ........................ 12

*Pending ACCJC Approval

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

- CSCI 201 [1] General Computer Literacy ................................................................. 3
- CMPET 263 [1] Internet Literacy ............................................................................ 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ......................... 18

A.S. DEGREE: COMPUTER ELECTRONICS

PROGRAM

(209) 575-6129

Computer Electronics

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.

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 an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 109) or the University Preparation Pathway (p. 103) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 16 UNITS

- CMPET 206 [2, 3 or 4] Personal Computer Assembling, Upgrading, and Repair .......... 3
- CMPET 212 [1] Digital Principles and Circuits ......................................................... 3
CERTIFICATE OF ACHIEVEMENT: 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELITEC 208*</td>
<td>Fundamentals of Electricity and Electronics</td>
<td>3</td>
</tr>
<tr>
<td>CMPET 212</td>
<td>Digital Principles and Circuits</td>
<td>3</td>
</tr>
<tr>
<td>CMPET 214</td>
<td>Microprocessor Programming and Interfacing</td>
<td>4</td>
</tr>
<tr>
<td>CMPET 206</td>
<td>Personal Computer Assembling, Upgrading, and Repair</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 270</td>
<td>Introduction to Programming</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES - COMPLETE 19 UNITS, AT LEAST 6 IN EACH AREA

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPET 210</td>
<td>Intermediate Personal Computer Servicing</td>
<td>3</td>
</tr>
<tr>
<td>CMPET 232</td>
<td>Introduction to Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>CMPET 269</td>
<td>Network+ Certification Training Lab</td>
<td>1</td>
</tr>
<tr>
<td>ELITEC 221</td>
<td>Instrumentation Devices and Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

COMPUTER AREA

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 271</td>
<td>Problem Solving and Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 221</td>
<td>Programming with Visual Basic</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 273</td>
<td>Assembly Language Programming</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 240</td>
<td>Networking Essentials</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 213</td>
<td>Windows Server OS</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 253</td>
<td>Introduction to Data Warehousing</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 223</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ........................................... 35
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 in the areas of JAVA programming, C++ programming, or Visual BASIC programming.

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 15 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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 217</td>
<td>Computer Illustration Software</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 235</td>
<td>Beginning Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 252</td>
<td>Desktop Publishing for Computer Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES - COMPLETE 6 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 120</td>
<td>Basic Drawing 1</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 225</td>
<td>3D Graphics and Animation</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 236</td>
<td>Advanced Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 266</td>
<td>Interactive Media Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 267</td>
<td>Dreamweaver in Web Site Design</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 284</td>
<td>Desktop Video Animation</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ... 21

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. 109) or the University Preparation Pathway (p. 103) 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 Code</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 220</td>
<td>Business Information Systems</td>
<td>3</td>
</tr>
<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 218</td>
<td>Business Law</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 230</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 232</td>
<td>Database Server Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

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

Computer Information Systems PROGRAM
(209) 575-6129

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.

Computer Programing Specialist PROGRAM
(209) 575-6129

CERTIFICATE OF ACHIEVEMENT: COMPUTER PROGRAMMING SPECIALIST

This Certificate of Achievement will prepare students to work as an entry level programmer in the areas of JAVA programming, C++ programming, or Visual BASIC programming.
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 problem analysis, design, implementation, and maintenance.
2. Be prepared to obtain employment in an entry-level position in software engineering.
3. Employ industry-accepted coding practices and standards.
4. Implement object-oriented software solutions.
5. Employ various code level debugging techniques.
6. Utilize software development tools.
7. Perform functional software testing.
8. Demonstrate professional and effective communication skills.

To earn a Certificate 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 12 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 270 [1]</td>
<td>Introduction to Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 271 [2]</td>
<td>Problem Solving and Programming 1</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 210 (2)</td>
<td>UNIX/Linux OS</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES – COMPLETE 3-4 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .......... 15-16

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Computer Science

PROGRAM

(209) 575-6129

This program is designed to prepare students who wish to transfer to a CSU and major in Computer Science. This program will provide students with an alignment of courses required for transfer and a cohesive group of courses in the area of Computer Science. Courses such as programming, discrete structures, computer architecture and organization will enable the student to demonstrate ability to engage in critical thinking and problem-solving in the application of computer science principles. The Associate in Science in Computer Science for Transfer degree includes curriculum which focuses on practical application of problem solving skills and theory.

Students who complete the degree will be able to demonstrate competence in the application of computer science. The Associate in Science in Computer Science for Transfer is intended for students who plan to complete a bachelor's degree in Computer Science 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. Potential careers in the Computer Science field include Computer Programmers, Computer Science Teachers, Software and Web Developers, and Computer and Information Systems Managers.

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.

A.S.-T. DEGREE: COMPUTER SCIENCE

PROGRAM REQUIREMENTS

To receive an Associate of Arts for Transfer degree in Computer Science, the student must complete the requirements detailed in the Transfer Model Curriculum Pathway. All courses must be completed with a C or better or "P" (Pass).

The following is required for the Associate in Science in Computer Science for Transfer (AS-T in Computer Science) degree:

1. Completion of 60 semester units or 90 quarter units eligible for transfer to the California State University, including the following:
   - The Intersegmental General Education Transfer Curriculum (IGETC) pattern.
   - A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
   - Obtainment of a minimum grade point average of 2.0.
   - ADT’s also require that students must earn a C or better or a "P" (Pass) in all courses required for the major or area of emphasis.

PROGRAM LEARNING OUTCOMES

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

1. Describe the organizational structure of computer hardware and its connection to computer software.
2. Describe how formal tools of symbolic logic and discrete structures are used to model real-life situations and relate the ideas of computational induction to recursion and recursively defined structures.
3. Design, implement, test, and debug algorithms to solve a variety of problems.
4. Design, implement, test, and debug computer programs using fundamental constructs and a variety of data structures.
5. Apply structured and object-oriented approaches to the design and implementation of computer programs.

REQUIRED CORE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 204 [NP]</td>
<td>Discrete Structures for Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 271 [NP]</td>
<td>Problem Solving and Programming 1</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 272 [NP]</td>
<td>Problem Solving and Programming 2</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 273 [NP]</td>
<td>Assembly Language Programming</td>
<td>3</td>
</tr>
<tr>
<td>MATH 171 [NP]</td>
<td>Calculus: First Course</td>
<td>5</td>
</tr>
<tr>
<td>MATH 172 [NP]</td>
<td>Calculus: Second Course</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 101 [NP]</td>
<td>General Physics: Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 103 [NP]</td>
<td>General Physics: Electricity, Magnetism, &amp; Modern Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED IN A.S.-T MAJOR ........................................... 30

TOTAL UNITS THAT MAY BE DOUBLE-COUNTED ...................................... 0-7

GENERAL EDUCATION (IGETC) UNITS .................................................. 37

ELECTIVE (CSU TRANSFERABLE) UNITS ................................................ 0

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 Geology for Transfer degree.
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.
2. Configure and use computer hardware and software to solve most entry level business application requirements.
3. Plan, design, and implement solutions to standard computing problems.
4. Make informed assessments of the quality and effectiveness software implementations, including their own.
5. Assist and help provide training to employees in local area businesses.
6. 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. 109) or the University Preparation Pathway (p. 103) 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 30-31 UNITS

INFORMATION SYSTEMS OPTION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 200</td>
<td>Technical Computer Literacy</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 270</td>
<td>Introduction to Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 230</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 231</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 223</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 Title</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>
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PROGRAMMING OPTION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</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>3</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>
</tbody>
</table>

CSCI 290 [4] Computer Science Final Project ...............................................3

TOTAL UNITS IN A.S. MAJOR .............................................................................30-31

Earth Science

PROGRAM

(209) 575-6173

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

ABOUT THIS EMPHASIS

This program is designed as an introductory study of the many branches of earth science, geology, oceanography, meteorology, and astronomy. Topics include the scientific method, natural resources, minerals, rocks, volcanism, plate tectonics, earthquakes, weathering, erosion, geological time, fresh water, oceans, ocean currents, the ocean floor, the atmosphere, clouds, storms, climate, the sun, the moon, the solar system, stars, interstellar matter, and the formation of the universe.

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. 103) which include completion of the requirements below. See advisor for selection of courses.

REQUIRED COURSES - COMPLETE 22 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EASC 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>4 OR</td>
</tr>
<tr>
<td>PHYS 142</td>
<td>Mechanics, Heat, &amp; Waves</td>
<td>4</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.

ASTRO 151 [NP] Introduction to Astronomy Laboratory ................................1
ASTRO 160 [NP] Introduction to Modern Astronomy ..................................3
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 ................................................................. 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

SKILLS RECOGNITION: EMERGENCY MEDICAL TECHNICIAN

The Emergency Medical Technician-Basic (EMT-Basic) program, provides the student with an outline of the EMS system, introduces assessment skills, as well as provides pathophysiology of common neurological, respiratory, and cardiac related emergencies. The EMT-1 program prepares emergency medical technicians for the National Registry EMT Basic Exam. Upon successful completion, EMTs may perform as ambulance attendants, fire emergency responders, or practice in private industry. It covers techniques of emergency medical care presently considered within the responsibilities of the emergency medical technician, and emphasizes the development of student skills in recognition of symptoms of illneses and injuries and proper procedures of emergency care. Successful EMT-Basic students may find employment with fire agencies, private ambulance companies, California Department of Forestry, ER techs, and other assorted jobs. Many successful EMT-1 students have also gone onto paramedic school, medical school, nursing school, physician’s assistant school, and other associated allied health professions.

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.
For those who love to read, write, interpret, and create, majoring or minoring in English is the right choice. English courses are designed to give proficiency in skills that are highly regarded by society: the ability to read with comprehension and critical judgment, to communicate accurately and effectively both orally and in writing, to think logically, to do research and organize materials, and to interpret and appreciate literature. The English major can lead to a career in teaching as well as in professional fields such as law, medicine, publishing, information science, and business. In addition to pre-collegiate composition courses (ENGL 49 and ENGL 50) and transfer-level courses (ENGL 101, ENGL 102, and ENGL 103), 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 literatures, folklore, and children’s literature.

The program also offers creative writing courses in poetry, and fiction. 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 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. 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:
(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. All courses within the major must be completed with a C or better or "P" (Pass).

* 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</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 103 [ NP ] Advanced Composition &amp; Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102 [ NP ] Advanced Composition &amp; Introduction to Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST A: (SELECT TWO) 6 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 135 [ NP ] Survey of American Literature to 1850</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 136 [ NP ] Survey of American Literature: 1850 to the Present</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 137 [ NP ] Survey of English Literature to the late 18th Century</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 138 [ NP ] Survey of English Literature: Late Eighteenth Century to Present</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 131 [ NP ] Intro to World Literature 1</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 132 [ NP ] Intro to World Literature 2</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST B: (SELECT ONE) 3 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any course from List A not already used</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 105 [ NP ] Creative Writing: Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 106 [ NP ] Creative Writing: Short Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 111 [ NP ] Creative Writing: Nonfiction</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 112 [ NP ] Introduction to the Novel and Short Story</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 114 [ NP ] Introduction to Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 116 [ NP ] Introduction to Drama</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 151 [ NP ] Folklore</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 163 [ NP ] Intro to Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 171 [ NP ] Intro to African-American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 176 [ NP ] Intro to Mexican Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 179 [ NP ] Intro to Native American Lit, Mythology, and the Oral Tradition</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST C: (SELECT ONE) 3 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 156 [ NP ] The Bible As Literature: The Hebrew Canon and Intertestamental Writings</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 161 [ NP ] Film Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 162 [ NP ] History of Cinema</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 168 [ NP ] Adolescent Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 169 [ NP ] Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 172 [ NP ] Intro to Chicano/a Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 173 [ NP ] Intro to Latin American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 175 [ NP ] Introduction to Women's Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED IN A.A.-T MAJOR .............................................. 18
TOTAL UNITS THAT MAY BE DOUBLE-COUNTED ........................................ 9
GENERAL EDUCATION (CSU GE OR IGETC) UNITS .................................... 37-39
ELECTIVE (CSU TRANSFERABLE) UNITS ................................................... 12-14
TOTAL UNITS REQUIRED FOR A.A.-T DEGREE ...................................... 60

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Environmental Horticulture Science

Program (209) 575-6200

A.S. Degree: Environmental Horticulture Science

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Identify and appraise the educational requirements for career opportunities in the horticulture industry.
2. Perform nursery practices necessary to be successful in the horticulture industry.
3. Identify landscape plants found in the Central Valley of California and describe the cultural characteristics, and growth habits, for each.
4. Demonstrate the effective work habits and inter-personal communication skills required by employers in the horticulture 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 259ABC (NP) Agricultural Work Experience ............................................. 1 - 4

II. AGRICULTURE SCIENCE BREADTH COURSES – COMPLETE 6 UNITS
ANSC 200 (NP) Introduction to Animal 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 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

IV. AGRICULTURE MAJOR ELECTIVES – COMPLETE 7 UNITS
AGM (ANY) Any class listed in Mechanized Agriculture .............................. 1 - 4
EHS 215 (NP) Landscape Design ........................................................................ 3
EHS 220 (NP) Turfgrass Management ............................................................... 3
EHS 235 (NP) Plant Propagation/Production .................................................... 3
EHS 276 (NP) Landscape Maintenance .............................................................. 3
EHS 278 (NP) Landscape Construction and Installation ..................................... 3
EHS 280 (NP) Principles of Floral Art and Design ........................................... 3
EHS 281 (NP) Advanced Floral Design ............................................................ 3
NR 222 (NP) Native Tree and Shrub Identification ......................................... 3
PLSC 250 (NP) Plant Nutrition and Fertilizer ................................................. 3
PLSC 255 (NP) Plant Pest Control ..................................................................... 3
PLSC 260 (NP) Plant Disease Control .............................................................. 3

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 259D, or a combination of AG 259A-C, or a combination of AG 249 and AG 259A-B.

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 basic floristry skills in the field of floral design, including plant identification, identification of health related issues, and general horticulture practices necessary to be successful in the horticulture industry.
2. List at least five career opportunities in the floristry field, both locally and within the State of California and the United States.
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.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS
AG 115 [1 ] Introduction to Agricultural Education & Careers ........................ 1
AG 249 ** [4] Agriculture Internship ................................................................. 2 OR
AG 259ABC (NP) Agricultural Work Experience ............................................. 1 - 4

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS
PLSC 200 (NP) 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 21 UNITS
EHS 201 (NP) Plant Identification & Usage 1 ..................................................... 3
EHS 215 (NP) Landscape Design ........................................................................ 3
EHS 220 (NP) Turfgrass Management ............................................................... 3
EHS 235 (NP) Plant Propagation/Production .................................................... 3
EHS 276 (NP) Landscape Maintenance .............................................................. 3
EHS 278 (NP) Landscape Construction and Installation ..................................... 3

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

**Required

CERTIFICATE OF ACHIEVEMENT: LANDSCAPE AND PARK MAINTENANCE

PROGRAM REQUIREMENTS

Upon satisfactory completion of this award, the student should be prepared to:
1. Perform practices related to the maintenance of residential and commercial landscapes.
2. Identify landscape plants found in the Central Valley of California and describe the cultural characteristics, as well as growth habits, for each.
3. Demonstrate effective work habits and interpersonal communication skills required by employers in the landscape and park maintenance industry.

PROGRAM LEARNING OUTCOMES

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 - COMPLETE 21 UNITS
EHS 201 (NP) Plant Identification & Usage 1 ..................................................... 3
EHS 202 (NP) Plant Identification & Usage 2 ..................................................... 3
EHS 215 (NP) Introduction to Environmental Horticulture Science ............... 3
EHS 276 (NP) Landscape Maintenance .............................................................. 3
EHS 278 (NP) Landscape Construction and Installation ..................................... 3
NR 200 (NP) Soils ...................................................................................................... 3
PLSC 200 (NP) Introduction to Plant Science ....................................................... 3

II. AGRICULTURE MAJOR ELECTIVES - COMPLETE 3 UNITS
AGM 200 (NP) Introduction to Mechanical Technology ...................................... 3
AGM 215 (NP) Machinery Management ........................................................... 3
AGM 230 (NP) Field Surveying ......................................................................... 2

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .................. 35
AGM 289 (2, 4) Principles of Power Mechanics/Small Engines .............................................. 3
EHS 220 (3, 4) Turfgrass Management ................................................................................. 3
NR 222 (3) Native Tree and Shrub Identification .................................................................. 3
PLSC 250 (2, 3) Plant Nutrition and Fertilizer ..................................................................... 3
PLSC 255 (NP) Plant Pest Control ....................................................................................... 3

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

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 20 UNITS

NR 200 [2] Soils ........................................................................................................... 3
EHS 201 [1,2] Plant Identification and Usage 1 .................................................................. 3
EHS 202 [1,2] Plant Identification and Usage 2 .................................................................. 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 259A-D (NP) Agriculture Work Experience ................................................................ 4

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ................................ 29

PROGRAM 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. Perform nursery practices necessary to be successful in the nursery production industry.
2. Identify nursery plants grown in California and describe the cultural characteristics and growth habits for each.
3. Demonstrate the effective work habits and interpersonal communication skills required by employers in the nursery production 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.

MAJOR REQUIRED COURSES - COMPLETE 15 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 Science ................................ 3
EHS 235 (NP) Plant Propagation/Production ............................................................... 3
NR 200 [1, 2] Soils ........................................................................................................... 3

AGRICULTURE MAJOR ELECTIVES - COMPLETE 6 UNITS

AGM 289 (2, 4) Principles of Power Mechanics/Small Engines ...................................... 3
EHS 215 [3] Landscape Design ....................................................................................... 3
EHS 276 [1, 2] Landscape Maintenance ........................................................................... 3
EHS 278 [3, 4] Landscape Construction and Installation .................................................. 3
NR 222 [3] Native Tree and Shrub Identification ............................................................. 3
PLSC 250 [2, 3] Plant Nutrition and Fertilizer ................................................................. 3
PLSC 255 (NP) Plant Pest Control ................................................................................ 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .................. 21

Ethnic Studies

PROGRAM

(209) 575-6129

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.

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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**

- ANTHR 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 ARTS AND LITERATURE: COMPLETE 3 UNITS

- ART 169 [NP] History of Non-Western Art ......................................................... 3
- ENGL 131 [NP] Introduction to World Literature 1 ........................................... 3
- ENGL 132 [NP] Introduction to World Literature 2 ........................................... 3
- ENGL 151 [NP] Folklore .................................................................................. 3
- ENGL 173 [NP] Introduction to Latin American Literature .............................. 3
- HUMAN 110 [NP] East Meets West .................................................................. 3
- MUSG 102 [NP] Introduction to World Music .................................................. 3
- DANCE 10 [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

- ANTHR 140 [NP] Magic, Witchcraft, & Religion ............................................. 3
- ANTHR 150 [NP] Native People of North America ............................................ 3
- GEOG 102 [NP] Cultural Geography ............................................................. 3
- HUMAN 130 [NP] Introduction to Western Religions ....................................... 3
- SOCS 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
- 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

C. EXPLORING CULTURAL AND SOCIOLOGICAL ISSUES - COMPLETE 3 UNITS

- CLDOV 262 [NP] Diversity in Educational Settings ...................................... 3
- SOCO 150 [NP] Ethnicities & Culture in America ........................................... 3
- SOCO 154 [NP] African-American Cultures and Communities ....................... 3
- SOCO 156 [NP] Mexican Culture in the United States ............................. 3

**TOTAL UNITS FOR SKILLS RECOGNITION AWARD ........................................ 15**
5. Explain minimum qualifications and entry-level skills for fire fighter 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. 109) or the University Preparation Pathway (p. 103) 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 Prevention 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 2E ..................................................................... 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 336 [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
FSCI 371 [NP] Fire Command 2A ........................................................................ 2.5
FSCI 372 [NP] Fire Management 2B ................................................................... 2.5
FSCI 373 [NP] Fire Instructor 2A ......................................................................... 2.5
FSCI 374 [NP] Fire Instructor 2B ......................................................................... 2.5
EMS 350 [NP] First Responder with Healthcare Provider CPR ........................... 3
EMS 380 [NP] Basic ECG Interp/Intro to Cardiac Care ........................................ 3
EMS 389 [NP] Emergency Medical Technician 1 - Clinical ............................... 0.5
EMS 390 [NP] Emergency Medical Technician 1 ............................................... 6
EMS 391 [NP] EMT 1 - Refresher Course ............................................................ 1.5

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

CERTIFICATE OF ACHIEVEMENT: FIRE SCIENCE

PROGRAM LEARNING OUTCOMES

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

1. Demonstrate compliance with California State Fire Training Standards for Firefighter I.
2. Explain the flow requirements for fire apparatus, diagraming a pump and plumbing schematic.
3. 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.
4. Explain minimum qualifications and entry-level skills for fire fighter hiring, describing the following elements: application process, written exam process, physical agility exam process, interview process and chief’s interview process.

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


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 ....................................................................... 2.5
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 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 [2] Basic Fire Academy ..................................................................... 8
FSCI 364 [NP] Fire Apparatus Driver/Operator 1A ............................................. 2
FSCI 366 [NP] Fire Apparatus Driver/Operator 1B ............................................. 2
FSCI 371 [NP] Fire Command 2A ..................................................................... 2.5
FSCI 372 [NP] Fire Management 2B ................................................................ 2.5
FSCI 373 [NP] Fire Instructor 2A ..................................................................... 2.5
FSCI 374 [NP] Fire Instructor 2B ..................................................................... 2.5
FTECH 301 XABC [NP] Incident Command Systems ..................................... 0.5, 1, 2, 3
FTECH 310 XABC [NP] Rescue Systems and Operations .............................. 0.5, 1, 2, 3
EMS 380 [1] Basic ECG Interpretation ............................................................... 3
EMS 389 [1] Emergency Medical Technician 1 - Clinical ............................... 0.5
EMS 390 [1] Emergency Medical Technician 1 ............................................... 6
EMS 391 [NP] Emergency Medical Tech. 1 (Refresher) ................................... 1.5

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .................. 30
CERTIFICATE OF ACHIEVEMENT: CSU-GE PATTERN

To earn a Certificate of Achievement in CSU General Education, the student must complete the requirements detailed in the CSU-GE Pattern. Each course must be completed with a grade of C or better. Students who plan to transfer to CSU 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 the 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.

CERTIFICATE OF ACHIEVEMENT: IGETC PATTERN

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.
- 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 the 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.

A.A. DEGREE: GENERAL STUDIES, EMPHASIS IN HUMANITIES

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 IG-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 Rationality. 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.

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 109 of the 2016-2017 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

ANTHR 104 Linguistic Anthropology ................................................................. 1
ART 102 Intro to Computer Graphics ............................................................... 3
ART 120 Basic Drawing 1 ............................................................................... 1
ART 124 Color and Design 1 ......................................................................... 1
ART 140 Sculpture 1 .................................................................................... 1
ART 160 Appreciation of Art ....................................................................... 3
ART 162 History of Renaissance Art ............................................................... 3
ART 163 History of Modern Art ..................................................................... 3
ART 164 History of Art 1 ............................................................................. 3
ART 165 History of Art 2 ............................................................................. 3
ART 168 Survey of Photography ................................................................... 3
ART 169 History of Non-Western Art ............................................................. 1
ART 170 Basic Photography ........................................................................ 3
CMGR 202 Intro to Computer Graphics ........................................................ 3
COMM 120 Oral Interpretation ...................................................................... 3
COMM 122 Introduction to Readers' Theatre .................................................. 3
COMM 123 Storytelling ................................................................................ 3
DANCE 102 Introduction to World Dance ....................................................... 1
ENGL 102 Advanced Composition & Introduction to Literature .................... 3
ENGL 105 Creative Writing: Poetry 3 ............................................................. 1
ENGL 106 Creative Writing: Short Fiction .................................................... 3
ENGL 111 Creative Writing: Creative Nonfiction ......................................... 1
ENGL 112 Introduction to the Novel and Short Story ..................................... 3
ENGL 114 Introduction to Poetry .................................................................. 1
ENGL 116 Introduction to Drama .................................................................. 1
ENGL 131 Introduction To World Literature 1 .............................................. 3
ENGL 132 Introduction to World Literature 2 ............................................... 3
ENGL 135 Survey of American Literature to 1850 ....................................... 3
ENGL 136 Survey of American Literature: 1850 to the Present ........................ 3
ENGL 137 Survey Of English Literature To The Late 18th Century ............... 3
ENGL 138 Survey Of English Literature: Late Eighteenth Century To Present  3
ENGL 151 Folklore ...................................................................................... 3
ENGL 156 The Bible as Literature: The Hebrew Canon and Intertestamental Writings 3
ENGL 157 The Bible as Literature: The New Testament ................................ 3
ENGL 161 Film Appreciation ....................................................................... 3
ENGL 162 History of Cinema ....................................................................... 3
ENGL 163 Introduction to Shakespeare .......................................................... 3
ENGL 168 Adolescent Literature .................................................................... 3
ENGL 169 Children's Literature ................................................................. 3
ENGL 171 Introduction to African-American Literature ................................ 3
ENGL 172 Intro to Chicano/a Literature ......................................................... 3
ENGL 173 Intro to Latin American Literature ................................................ 3
ENGL 174 Introduction to Modern Asian Literature ....................................... 3
ENGL 175 Introduction to Women's Literature ............................................. 3
ENGL 176 Introduction to Mexican Literature .............................................. 3
ENGL 179 Intro to Native American Literature, Mythology, and the Oral Tradition 3
FREN 1 Introductory French 1 ...................................................................... 3
FREN 52 Introductory French 2 ...................................................................... 3
FREN 101 French 1 ...................................................................................... 5
FREN 102 French 2 ...................................................................................... 5
FREN 103 French 3 ...................................................................................... 5
FREN 104 French 4 ...................................................................................... 5
GERM 101 German 1 ................................................................................... 5
GERM 102 German 2 ................................................................................... 5
HIST 104 Western Civilizations 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 17th Century ...................................... 3
HUMAN 101 Introduction to the Humanities ................................................ 3
HUMAN 105 Early Humanistic Traditions .................................................... 3
HUMAN 106 Humanities in the Modern World ............................................ 3
HUMAN 110 East Meets West ...................................................................... 3
HUMAN 130 Introduction to Western Religions ........................................... 3
HUMAN 140 Introduction to World Mythology .............................................. 3
ITAL 101 Italian (SU08) .............................................................................. 5
MUSG 101 Music Appreciation ................................................................... 3
MUSG 102 Introduction to World Music ....................................................... 3
MUSG 111 Introduction to American Popular Music .................................... 3
MUSG 121 History of Western Music 1 ......................................................... 3
MUSG 122 History of Western Music 2 ......................................................... 3
MUST 101 Music Fundamentals 1 ................................................................. 3
MUST 121 Music Theory 1 ......................................................................... 3
MUST 122 Music Theory 2 ......................................................................... 3
MUST 123 Music Theory 3 ......................................................................... 3
MUST 124 Music Theory 4 ......................................................................... 3
PHILO 101 Philosophy ............................................................................... 3
PHILO 111 Ethics: Theory and Application ................................................... 3
PHILO 113 Philosophy of Art (SU08) .............................................................. 3
PHILO 115 Religion: A Philosophical and Comparative Inquiry .................... 3
PHILO 120 History of Philosophy: Ancient ................................................... 3
PHILO 121 History of Philosophy: Modern .................................................. 3
PHILO 123 Twentieth Century Philosophy .................................................. 3
PHILO 130 Political Philosophy ................................................................. 3
PHILO 135 Environmental Ethics ................................................................. 3
PHILO 140 Philosophy and Film ................................................................... 3
SIGN 125 ASL: Beginning Communication with the Deaf ............................ 3
SIGN 126 ASL: Intermediate Communication with the Deaf ........................ 3
SIGN 127 ASL: Advanced Communication with the Deaf ........................... 3
SOCSC 105 Women's Studies ...................................................................... 3
SOCSC 153 Movies with a Message .............................................................. 5
SPAN 51 Introductory Spanish 1 ................................................................. 3
SPAN 52 Introductory Spanish 2 ................................................................. 3
SPAN 101 Spanish 1 ................................................................................... 5
SPAN 102 Spanish 2 ................................................................................... 5
SPAN 103 Spanish 3 ................................................................................... 4
SPAN 104 Spanish 4 ................................................................................... 4
SPAN 109 Spanish for Spanish Speakers 1 ................................................... 5
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 system the students use.

Follow the Career and Technical Education Pathway for associate degree on page 109 of the 2016-2017 MJ C Catalog. Satisfactory completion of this pathway will result in an associate degree from Modesto Junior College.

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

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEC 225</td>
<td>Agriculture Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 210</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<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>
<tr>
<td>COMM 104</td>
<td>Argumentation</td>
<td>3</td>
</tr>
<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>
</tr>
<tr>
<td>COMM 132</td>
<td>Introduction to Mass Communication</td>
<td>3</td>
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<tr>
<td>COMM 133</td>
<td>Mediated Communications</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 200</td>
<td>Technical Computer Literacy</td>
<td>3</td>
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<tr>
<td>CSCI 201</td>
<td>General Computer Literacy</td>
<td>3</td>
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<tr>
<td>CSCI 203</td>
<td>Symbolic Logic</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 204</td>
<td>Discrete Structures for Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 213</td>
<td>Windows Server OS</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS IN EMPHASIS .......................................................... 18

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 109 of the 2016-17 MJ C 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 Studies 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 ASTR, EASCI, GEOL, or METEO. Life Sciences Group: Any courses listed below in BIO, BOT, or ZOO.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 221</td>
<td>Programming with Visual BASIC</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 230</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 233</td>
<td>Web Database Development</td>
<td>3</td>
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<tr>
<td>CSCI 271</td>
<td>Problem Solving and Programming 1</td>
<td>3</td>
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<tr>
<td>CSCI 272</td>
<td>Problem Solving and Programming 2</td>
<td>3</td>
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<tr>
<td>CSCI 273</td>
<td>Assembly Language Programming</td>
<td>3</td>
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<td>CSCI 274</td>
<td>Windows Programming Visual C++</td>
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<tr>
<td>ENGL 103</td>
<td>Advanced Composition &amp; Critical Thinking</td>
<td>3</td>
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<tr>
<td>LIBR 100</td>
<td>Research Concepts and Practice</td>
<td>3</td>
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<tr>
<td>MATH 89</td>
<td>Intermediate Algebra Essentials</td>
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<td>MATH 90</td>
<td>Intermediate Algebra</td>
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<tr>
<td>MATH 101</td>
<td>Mathematical Ideas and Applications</td>
<td>3</td>
</tr>
<tr>
<td>MATH 105</td>
<td>Structure of Mathematics 1</td>
<td>3</td>
</tr>
<tr>
<td>MATH 106</td>
<td>Structure of Mathematics 2</td>
<td>3</td>
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<tr>
<td>MATH 111</td>
<td>Applied College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 121</td>
<td>Pre-Calculus 1</td>
<td>5</td>
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<td>MATH 122</td>
<td>Pre-Calculus 2</td>
<td>5</td>
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<tr>
<td>MATH 130</td>
<td>Finite Mathematics</td>
<td>3</td>
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<tr>
<td>MATH 134</td>
<td>Elementary Statistics</td>
<td>4</td>
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<tr>
<td>MATH 138</td>
<td>Calculus for Business and Social Sciences</td>
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</tr>
<tr>
<td>MATH 171</td>
<td>Calculus: First Course</td>
<td>5</td>
</tr>
<tr>
<td>MATH 172</td>
<td>Calculus: Second Course</td>
<td>5</td>
</tr>
<tr>
<td>MATH 173</td>
<td>Calculus: Third Course</td>
<td>5</td>
</tr>
<tr>
<td>MATH 174</td>
<td>Introduction to Differential Equations and Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 103</td>
<td>Symbolic Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 105</td>
<td>Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 107</td>
<td>Philosophy of Science</td>
<td>3</td>
</tr>
<tr>
<td>SOCIO 105</td>
<td>Critical Thinking and Analytic Writing</td>
<td>3</td>
</tr>
<tr>
<td>SUPR 106</td>
<td>Group &amp; Organizational Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS IN EMPHASIS .......................................................... 18
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 - 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. Complete 6 units in each.

AG 376 Basic Science and Laboratory Techniques ........................................3
ANAT 125 Human Anatomy .................................................................4
ANSC 200 Introduction to Animal Science ............................................3
ANTHR 101 Biological Anthropology ..................................................3
ANTHR 105 Biological Anthropology Laboratory ................................1
AP 50S Elementary Human Anatomy-Physiology ...............................3
AP 130 Integrative Anatomy & Physiology ...........................................5
ASTRO 151 Introduction to Astrophysics Lab .........................................1
ASTRO 160 Introduction to Modern Astronomy .....................................3
BIO 50 Basic Biology ...........................................................................3
BIO 101 Biological Principles .............................................................4
BIO 111 General Biology .....................................................................4
BIO 114 General Ecology ....................................................................4
BIO 115 Genetics, Evolution, and Society ...........................................3
BIO 116 Biology: A Human Perspective ..............................................4
BIO 140 Introduction to Marine Biology .............................................4
BIO 145 Introduction to Freshwater Biology ........................................4
BOT 101 General Botany .....................................................................4
CHEM 101 General Chemistry 1 .........................................................5
CHEM 102 General Chemistry 2 .........................................................5
CHEM 112 Organic Chemistry ............................................................5
CHEM 113 Organic Chemistry 2 .........................................................5
CHEM 122 Structure & React: Organic Chem 1 .....................................4
CHEM 123 Structure & React: Organic Chem 2 .....................................4
CHEM 142 Pre-General Chemistry .....................................................3
CHEM 143 Introductory College Chemistry .........................................4
CHEM 144 Fundamentals of Organic & Biochemistry ..........................4
CHEM 150 Exploring Our Chemical Environment ................................3
CHEM 164 Introductory Chemistry Laboratory ..................................2
EASCI 161 Earth Science ....................................................................4
EASCI 162 Introduction to Oceanography ............................................4
ELTEC 208 Fundamentals of Electricity and Electronics ....................3
ENSCI 108 Environmental Conservation ..........................................3
GEOG 101 Physical Geography ..........................................................3
GEOL 160 Introduction to Geology .....................................................3
GEOL 161 Physical Geology ..............................................................4
GEOL 165 Geology of California .........................................................3
GEOL 166 Historical Geology ............................................................4
METEO 161 Introduction to Meteorology ............................................4
MICRO 101 Microbiology .................................................................4
MICRO 111 Plagues of Humankind .....................................................3
NR 200 Soils ....................................................................................3
PE 124 Introduction to Kinesiology ....................................................3
PHSIC 180 Concept Phys Sc: A Hands-On Appr ...................................4
PHYS 101 General Physics: Mechanics ..............................................4
PHYS 102 General Physics: Waves, Thermodynamics and Optics .......4
PHYS 103 General Physics: Electricity, Magnetism and Modern Physics.4
PHYS 142 Mechanics, Heat and Waves ................................................
PHYS 143 Electricity, Magnetism, Optics, Atomic and Nuclear Structure.4
PHYS 160 Descriptive Introduction to Physics ....................................3
PHYS 165 Introductory Physics ..........................................................4

PHYS 180 Conceptual Physics: A Hands-on Approach ............................4
PHYSO 101 Introductory Human Physiology ......................................4
PHYSO 103 Introduction to Neuroscience ...........................................3
PLSC 200 Introduction to Plant Science .............................................3
PLSC 230 Fruit Science .................................................................3
PSYCH 101 Introduction to Neuroscience ..........................................3
ZOOI 101 General Zoology .............................................................4

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.

ADJO 201 Introduction to Administration of Justice ................................3
ADJO 202 Principles/Procedures of Justice .........................................3
ADJO 203 Concepts of Criminal Law ..................................................3
ADJO 217 Substance Abuse ..............................................................3
ADJO 235 Introduction to Corrections ................................................3
AGEC 210 Elements of Agricultural Economics ..................................3
AGGE 146 Agriculture, Environment & Society ................................3
ANTHR 101 Biological Anthro .........................................................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
BUSAD 240 Principles of Management ..............................................3
CLDDV 103 Child Growth and Development ...................................3
CLDDV 109 Child-Fam Comm ............................................................3
CLDDV 160 Introduction to Children with Special Needs ....................3
CLDDV 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
# A. A.-T DEGREE: GEOGRAPHY

Geography is the study of spatial aspects of the physical environment, human activities, and the nature of their interactions. Geography draws upon theories from both the physical and social sciences. As physical scientists, geographers study earth processes and the resulting features; climate, soils, vegetation, tectonics, landforms and resources. As social scientists, geographers examine human behaviors and the patterns humans create through economics, religion, language, urbanization, folk and popular culture, and ethnic identities which are reflected in the landscape. Geography utilizes a regional approach to examine the interrelationships between the physical environment, economy, culture, politics and history of specific locations, such as California, Europe or Asia.

The Associate in Arts in Geography for Transfer (AA-T in Geography) degree is intended for students who plan to complete a bachelor’s degree in Geography 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.

The following is required for the Associate in Arts in Geography for Transfer (AA-T in Geography) 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 or "P" (Pass).

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

### PROGRAM LEARNING OUTCOMES

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

1. Assess the relationship between humans and the environment.
2. Describe and analyze spatial patterns of geographic phenomena.
3. Describe geographical methodology as it pertains to spatial patterns and the application of the scientific method to global problems.

### PROGRAM REQUIREMENTS

To receive an Associate of Arts for Transfer degree in Geography, the student must complete the requirements detailed in the Transfer Model Curriculum Pathway. All courses must be completed with a "C" or better or "P" (Pass).

### TOTAL UNITS IN EMPHASIS ................................................................. 18
The following is required for the Associate in Science in Geology for Transfer degree:

- 60 semester or 90 quarter CSU-transferable units.
- The Interssegmental General Education Transfer Curriculum (IGETC) pattern.
- A minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district.
- Obtainment of a minimum grade point average (GPA) of 2.0.
- Earn a grade of C or better in all courses required for the major or area of emphasis.
- ADTs also require that students must earn a C or better or a "P" (Pass) in all courses required for the major or an area of emphasis.

**REQUIRED CORE: COMPLETE 28 UNITS**

- **CHEM 101 (NP) General Chemistry:** 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**

**TOTAL UNITS THAT MAY BE DOUBLE-COUNTED .......................................................... 7-8**

**GENERAL EDUCATION (IGETC PATTERN UNITS) .................................................. 37**

**ELECTIVE (CSU TRANSFERABLE UNITS) ................................................................. 0-3**

**TOTAL UNITS REQUIRED FOR THE 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 Geology for Transfer degree.*
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

- ENGL 101 (NP) Composition and Reading ........................................... 3
- HUMSR 104 (NP) Aging in America ..................................................... 3
- HUMSR 110 (NP) Intro to Interviewing, Counseling ............................. 3

TOTAL UNITS FOR SKILLS RECOGNITION AWARD ............................. 9

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 or a “P” (Pass).

ADTs also require that students must earn a C or better or “P” (Pass) in all courses required for the major or area of emphasis.

REQUIRED COURSES – COMPLETE 6 UNITS

- HIST 101 (NP) History of the United States to 1877 .............................. 3
- HIST 102 (NP) History of the United States since 1865 ........................ 3

LIST A - SELECT 2 (6 UNITS)

- HIST 106 (NP) World Civilization to the 16th Century ........................ 3 OR
- HIST 107 (NP) World Civilization from the 16th Century ........................ 3 OR
- HIST 105 (NP) Western Civilization since 1650 ................................. 3

LIST B - SELECT 1 COURSE FROM EACH AREA (6 UNITS) (INCLUDING COURSES FROM LIST A IF NOT USED ABOVE)

AREA 1

- HIST 112 (NP) Twentieth Century America ........................................ 3
- HIST 113 (NP) Social and Cultural History of the US prior to the 20th Century ............................................................... 3
- HIST 115 (NP) Economic History of the United States ......................... 3
- HIST 116 (NP) Women in American History ....................................... 3
- HIST 119 (NP) Social and Cultural History of 20th Century America .......................... 3
- HIST 125 (NP) History of Mexico ....................................................... 3
- HIST 128 (NP) History of American Far Western Frontier .................... 3
- HIST 129 (NP) History of California ................................................. 3
- HIST 145 (NP) History of Latin America ............................................. 3
- HIST 154 (NP) African Americans through the 19th Century ................ 3
- HIST 155 (NP) African Americans in the 20th and 21st Centuries ........... 3
- ANTHR 150 (NP) Native Americans of North America ........................ 3

AREA 2

- HIST 112 (NP) Twentieth Century America ........................................ 3
- HIST 113 (NP) Social and Cultural History of the US prior to the 20th Century ............................................................... 3
- HIST 115 (NP) Economic History of the United States ......................... 3
- HIST 116 (NP) Women in American History ....................................... 3
- HIST 119 (NP) Social and Cultural History of 20th Century America .......................... 3
- HIST 125 (NP) History of Mexico ....................................................... 3
- HIST 128 (NP) History of American Far Western Frontier .................... 3
- HIST 129 (NP) History of California ................................................. 3
- HIST 145 (NP) History of Latin America ............................................. 3
- HIST 154 (NP) African Americans through the 19th Century ................ 3
- HIST 155 (NP) African Americans in the 20th and 21st Centuries ........... 3
- ANTHR 150 (NP) Native Americans of North America ........................ 3
- ANTHR 102 (NP) Cultural Anthropology ............................................ 3
- GEOG 102 (NP) Cultural Geography ................................................. 3
- GEOG 110 (NP) World Regional Geography ....................................... 3
- PHIL 101 (NP) Philosophy ............................................................... 3
- PHIL 120 (NP) History of Philosophy: Ancient ................................. 3
- PHIL 121 (NP) History of Philosophy: Modern ................................. 3
- SOCSCI 105 (NP) Women’s Studies ................................................. 3

TOTAL UNITS IN THE A.A.-T MAJOR ..................................................... 18

TOTAL UNITS THAT MAY BE DOUBLE-COUNTED .................................. 18

GENERAL EDUCATION (CSU-GE OR IGETC PATTERN UNITS) ............ 37-39
ELECTIVE (CSU TRANSFERABLE UNITS) ........................................... 21-23

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.
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

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<td>HUMSR 110</td>
<td>Introduction to Interviewing, Counseling</td>
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<td>HUMSR 114</td>
<td>Death and Dying</td>
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<td>HUMSR 144</td>
<td>Community Agency Practicum Discussion</td>
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<td>HUMSR 116</td>
<td>Drugs and Alcohol in Society</td>
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<tr>
<td>SOCIO 150</td>
<td>Ethnicity and Culture in America</td>
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<td>SOCIO 156</td>
<td>Mexican Culture in the United States</td>
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ELECTIVE COURSES - COMPLETE 3 UNITS

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<td>HUMSR 113</td>
<td>Co-Occurring Disorders</td>
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<td>HUMSR 119</td>
<td>Introduction to Group Leadership &amp; Group Process</td>
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<td>HUMSR 120</td>
<td>Professional Devt. in the Helping Professions</td>
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<td>POLS 120</td>
<td>California Politics and Problems</td>
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<td>PSYCH 51</td>
<td>Psychology in Everyday Life</td>
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<td>PSYCH 101</td>
<td>General Psychology</td>
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<td>PSYCH 104</td>
<td>Introduction to Social Psychology</td>
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<td>PSYCH 110</td>
<td>Human Sexual Behavior</td>
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<td>SOCIO 101</td>
<td>Introduction to Sociology</td>
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<tr>
<td>SOCIO 125</td>
<td>Sociology of the Family</td>
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</table>

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

Humanities

PROGRAM (209) 575-6081

A.A. DEGREE: UNIVERSITY PREPARATION, EMPHASIS IN HUMANITIES

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;
Program Learning Outcomes

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

1. Describe how cultural beliefs, values and practices have influenced societies in various times.
2. Analyze the ways that individuals and various cultural groups act in response to their societies and environment.
3. Demonstrate awareness of the various ways that culture, ethics, history, belief, and ethnicity affect individual experience and society as a whole.
4. Demonstrate the ability to interpret and analyze works of art for meaning and to forge aesthetic judgments.
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 9 Units

- 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
- HUMAN 196 [NP] Humanities Special Topics: Social Justice ............................................ 3 OR
- HUMAN 197 [NP] Humanities Special Topics: Nature and Civilization ............................. 3 OR
- HUMAN 198 [NP] Humanities Special Topics: Place and Identity ...................................... 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 2 ............................................................. 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 ........................................................................................................ 3
- GERM 101 [NP] German 1 .................................................................................................... 3
- ITAL 101 [NP] Italian 1 .......................................................................................................... 3
- SPAN 101 [NP] Spanish 1 ..................................................................................................... 3

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 130 [NP] Introduction to Western Religions .......................................................... 3
- HUMAN 140 [NP] Introduction to World Mythology ........................................................... 3
- PHIL 111 [NP] Ethics: Theory and Application .................................................................. 3
- PHIL 120 [NP] History of Philosophy: Ancient ................................................................. 3
- PHIL 121 [NP] History of Philosophy: Modern ................................................................. 3
- PHIL 123 [NP] Twentieth Century Philosophy .................................................................. 3

Elective Courses Group 3 - Take One Course from the Following

- ART 164 [NP] History of Art 1 .............................................................................................. 3
- ART 165 [NP] History of Art 2 .............................................................................................. 3
- ART 169 [NP] Survey of Asian Art ..................................................................................... 3
- COMM 123 [NP] Storytelling .............................................................................................. 3
- DANCE 102 [NP] Introduction to Dance ............................................................................. 3
- HIST 104 [NP] Western Civilization to 1650 ................................................................. 3 OR
- HIST 105 [NP] Western Civilization since 1650 ............................................................. 3 OR
- MUSG 102 [NP] Introduction to Music ............................................................................ 3
- MUSG 121 [NP] History of Music 1 .................................................................................. 3
- MUSG 122 [NP] History of Music 2 .................................................................................. 3

Total Units in A.A. Major ........................................................................................................ 18 – 20

Industrial Electronics

Program

(209) 575-6332

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. Perform basic troubleshooting and electrical oriented repairs on installations in accordance to industry standards.
2. Work successfully in the Power Utility, Building Trades, and/or Manufacturing Industry.
3. Comply with current electrical/engineering safety and environmental 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. 109) or the University Preparation Pathway (p. 103) which include completion of the requirements below.
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 & Assembly Techniques ................. 3
ELTEC 221 [3] Instrumentation Devices and Systems .......................... 3
ELTEC 223 [2] Industrial Electrical Components & Control Devices ........ 3
ELTEC 229 [3,4] Commercial & Industrial Wiring ................................. 3.5
ELTEC 232 [2] Introduction to Programmable Logic Controllers .......... 2
ELTEC 265 [1] Troubleshooting Techniques ........................................... 1

ELECTIVE COURSES - COMPLETE 7 UNITS

ELTEC 214 [2,3,4] Microprocessor Programming and Interfacing .............. 4
CMPET 206 [2,3,4] Personal Computer Assembling, Upgrading, and Repairing ...... 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ............. 33.5

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 240 [1] Principles of Management ......................................... 3 OR
BUSAD 248 [1] Introduction to Business ............................................. 3 OR

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .......... 17
Language Studies
PROGRAM (209) 575-6159

A.A. DEGREE: UNIVERSITY PREPARATION, EMPHASIS IN LANGUAGE STUDIES

What is the University Preparation degree? The University Preparation degree, distinctive of the University Preparation "pathway," is designed to prepare you for transfer to a California State University (CSU) or University of California (UC) campus. While completion of this program does not guarantee admission to a specific college or university, it allows you to complete preparatory courses that may apply toward the area of study in which you plan to major at your target transfer university, and to complete general education requirements required by CSU and UC for bachelor's (baccalaureate) degree. It entails an interdisciplinary approach to learning that will allow you to simultaneously meet your unique transfer goals and fulfill lower division requirements for bachelor's degree at many CSU or UC institutions. You will do this by completing a rigorous general education experience with either the CSU-GE or IGETC general education patterns, in addition to completing an emphasis in a particular field or program. How does it work? Each emphasis has been crafted to help you prepare for upper-division coursework in a baccalaureate major at a four-year university. By fulfilling the requirements of the MIC emphasis, you will also be completing some or all lower-division preparation for baccalaureate major at the university. ASSIST (www.assist.org) is a statewide database of recorded transfer agreements between community colleges and universities. You are advised to use ASSIST in selecting courses from the emphasis to ensure that the coursework applies to your baccalaureate major. University Preparation with Emphasis Prepare for transfer with some majors at MJC. Not every program at MJC offers a degree designed for transfer-oriented students. However, many programs do offer AA or AS majors which function like the emphasis for transfer-oriented students. Those majors are included on the following pages to help you make the right decision when determining the best transfer-oriented path of study.

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 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.

REQUIRED COURSES - COMPLETE 3 UNITS

ENGL 103 Advanced Composition and Critical Thinking ........................................3

COMPLETE 14 UNITS IN ONE OR TWO LANGUAGES FROM THE FOLLOWING:

FREN 101 [NP] French 1 .................................................................5
FREN 102 [NP] French 2 .................................................................5
GERM 101 [NP] German 1 .............................................................5
GERM 102 [NP] German 2 .............................................................5
ITAL 101 [NP] Italian 1 .................................................................5
SIGN 123 [NP] ASL: Beginning Communication with the Deaf .........................3

SIGNED 126 [NP] ASL Intermediate Communication with the Deaf ....................3
SIGNED 127 [NP] ASL Advanced Communication with the Deaf .....................3
SPAN 101 [NP] Spanish 1 ..............................................................5
SPAN 102 [NP] Spanish 2 ..............................................................5
SPAN 103 [NP] Spanish 3 ..............................................................4
SPAN 104 [NP] Spanish 4 ..............................................................4
SPAN 109 [NP] Spanish for Spanish Speakers 1 ...........................................5
SPAN 110 [NP] Spanish for Spanish Speakers 2 ...........................................5

ELECTIVE COURSES - COMPLETE 3 UNITS

ENGL 102 [NP] Advanced Composition and Introduction to Literature ...............3
ENGL 131 [NP] Introduction To World Literature 1 ......................................3
ENGL 132 [NP] Introduction to World Literature 2 ......................................3
ENGL 172 [NP] Introduction to Chicano/a Literature ..................................3
ENGL 175 [NP] Women in Literature .......................................................3
ENGL 176 [NP] Introduction to Mexican Literature ......................................3
ENGL 179 [NP] Intro to Native American Lit, Mythology, and Oral Tradition ....3
SPAN 112 [NP] Introduction to Chicano/a Literature ..................................3
SPAN 173 [NP] Survey of Latin American Literature .....................................3
COMM 130 [NP] Intercultural Communication ...........................................3

TOTAL UNITS IN EMPHASIS ................................................................... 20

Logistics
PROGRAM (209) 575-6129

The Logistics and Supply Chain Management program is designed to prepare students for entry level jobs in warehousing, inventory control, distribution center operations, transportation operations, procurement or customer service. Successful students will receive a vocational education that will provide the foundation for jobs such as warehouse clerk, distribution clerk, inventory clerk, logistics clerk, purchasing clerk, production scheduler or customer representative.

SKILLS RECOGNITION: LOGISTICS AND SUPPLY CHAIN MANAGEMENT

The one-semester certificate program is designed to provide students a basic logistics and supply chain management foundation for entry level professional jobs in warehousing, distribution center operations, inventory control, transportation operations, purchasing, customer service or import/export operations.

PROGRAM LEARNING OUTCOMES

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

1. Describe key logistics and supply chain functions and processes.
2. Apply essential logistics and supply chain concepts.
3. Demonstrate essential knowledge and skills to work successfully in an entry level professional job in the logistics and supply chain industry.
4. Apply fundamental team working skills.
PROGRAM REQUIREMENTS

To earn a Skills Recognition Award, the student must complete all required coursework. Each course must be completed with a "C" or better.

REQUIRED COURSES: COMPLETE THREE COURSES

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<td>LOGST 201</td>
<td>[NP] Operations Management and Lean Principles</td>
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<tr>
<td>LOGST 202</td>
<td>[NP] Introduction to Supply Chain Management</td>
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ELECTIVE COURSES: COMPLETE TWO COURSES

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<td>BUSAD 209</td>
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<td>LOGST 203</td>
<td>[NP] Introduction to Transportation Management</td>
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<td>LOGST 206</td>
<td>[NP] Introduction to Purchasing and Contracting</td>
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<td>LOGST 207</td>
<td>[NP] Introduction to Customer Service</td>
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TOTAL UNITS FOR SKILLS RECOGNITION AWARD ............................................. 15

SKILLS RECOGNITION AWARD: LOGISTICS ASSOCIATE

The 16-week Logistics Associate Skills Recognition Award is designed to train students in logistics and supply chain operations for entry level associate positions in warehousing, distribution, transportation, and production. The program consists of a comprehensive behind-the-wheel forklift driver training as well as a rigorous APICS coursework in logistics and supply chain. Students will have the opportunity to obtain APICS’ internationally recognized Global Logistics Associate (GLA) certification after successful completion of a comprehensive exam.

PROGRAM LEARNING OUTCOMES

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

1. Drive/operate various materials handling equipment safely.
2. Apply basic logistics and supply chain management concepts.
3. Demonstrate compliance with current OSHA safety requirements.
4. Demonstrate necessary skills to obtain entry level logistics associate position

PROGRAM REQUIREMENTS

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

REQUIRED COURSES: COMPLETE 7 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOGST 300</td>
<td>[1] Global Logistics Associate Training</td>
<td>3</td>
</tr>
<tr>
<td>LOGST 301</td>
<td>[1] Lift Truck Operations and Safety Training</td>
<td>2</td>
</tr>
<tr>
<td>LOGST 299B</td>
<td>[1] Logistics Internship</td>
<td>2</td>
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</tbody>
</table>

TOTAL UNITS FOR SKILLS RECOGNITION AWARD ............................................. 7

Machine Tool Technology Program
(209) 575-6332

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

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 109) or the University Preparation Pathway (p. 103) 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 25 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 200</td>
<td>[1] Arc &amp; Gas Welding</td>
<td>3</td>
</tr>
<tr>
<td>MACH 219</td>
<td>[2] Introduction to CNC Mill Programming</td>
<td>2</td>
</tr>
<tr>
<td>MACH 357</td>
<td>[1] Machine Trades Print Reading</td>
<td>2</td>
</tr>
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</table>

COMPLETE 2 UNITS FROM THE FOLLOWING:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 395ABC</td>
<td>[NP] Advanced Mach Tool Technology Lab</td>
<td>1 - 3</td>
</tr>
<tr>
<td>MACH 218</td>
<td>[3] Introduction to CNC Lathe Programming</td>
<td>2</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES - COMPLETE 3 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>&amp; Flux Core Arc Welding (F.C.A.W)</td>
<td></td>
<td></td>
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</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 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.

To earn a Certificate of Achievement Award, student must complete the 16 required units. Each course must be completed with a C or better.

REQUIRED COURSES – COMPLETE 16 UNITS

- MACH 211 [1] Machine Tool Technology 1 .................................................. 5
- MACH 213 [3 or 4] Machine Tool Technology 3 ............................................. 4
- MACH 395ABC [3 or 4] Advanced Machine Tool Technology Laboratory .... 1-3 OR WELD 200 [NP] Arc & Gas Welding ......................................................... 3

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

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.

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

- MATH 20 Pre-Algebra .................................................................................... 5

REQUIRED COURSES – COMPLETE 25 UNITS


- WELD 200 [1] Arc & Gas Welding................................................................. 3
- MACH 219 [2] Introduction to CNC Mill Programming .................................. 2
- MACH 357 [1] Machine Trades Print Reading .............................................. 2

COMPLETE 2 UNITS FROM THE FOLLOWING:

- MACH 395ABC [NP] Advanced Mach Tool Technology Lab ............... 1 - 3
- MACH 218 [3] Introduction to CNC Lathe Programming ....................... 2

ELECTIVE COURSES – COMPLETE 3 UNITS


TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .................. 30

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. 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 219 [1] Introduction to CNC Mill Programming ....................... 2
- MACH 222 [1] CNC Machine Operations ............................................... 2

TOTAL UNITS FOR SKILLS RECOGNITION AWARD ................................. 7

SKILLS RECOGNITION: CNC PROGRAMMER

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.

PROGRAM REQUIREMENTS

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 COURSES — COMPLETE 16 UNITS

- MACH 301 [1] Machine Shop 1 ................................................................................. 3
- MACH 357 [1] Machine Trades Print Reading .............................................................. 2

ELECTIVE COURSES — COMPLETE 5 UNITS

- ELTEC 320 [NP] Electrical Safety .............................................................................. 1
- ELTEC 265 [NP] Troubleshooting Techniques ............................................................... 1
- ELTEC 300 [NP] Survey of Applied Technologies ....................................................... 3
- 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

PROGRAM REQUIREMENTS

To earn a Certificate of Achievement, student must complete the following requirements.

REQUIRED COMPETENCIES FOR CERTIFICATE

- MATH 20 Pre-Algebra ............................................................................................... 5 OR
- Eligibility for MATH 70 by MJC assessment process.
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.

**REQUIRED COURSES: COMPLETE 18 UNITS**

- BUSAD 240 [1] Principles of Management .................................................. 3
- BUSAD 245 [1] Principles of Marketing .................................................. 3
- CSCI 201 [1] General Computer Literacy .................................................. 3

**ELECTIVE COURSES - COMPLETE 9-12 UNITS**

- BUSAD 310 [1] Bookkeeping 1 ................................................................. 3 OR
- BUSAD 200 [2, 3] Spreadsheet Skills for Financial Accounting ................. 2 OR
- OPADM 259 [2] Introduction to Spreadsheet Software ................................ 1 OR
- BUSAD 248 [2] Introduction to Business .................................................. 3
- BUSAD 208 [1, 2] Introduction to International Business ............................... 3
- BUSAD 209 [1, 2] Import/Export Fundamentals .......................................... 3
- BUSAD 364 [1, 1, 2, 2] Total Quality Management ....................................... 3

**TOTAL UNITS IN A.S. MAJOR ................................................................27-30**

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**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. ADTs also require that students earn a C or better or a “P” (Pass) in all courses required for the major or area of emphasis.
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 24 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 Differential Equations and Linear Algebra .......... 5
- PHYS 101 [NP] General Physics: Mechanics ............................................ 4
Medical Assisting
PROGRAM
(209) 575-6362

The Modesto Junior College Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs
1361 Park Street
Clearwater, FL 33756
(727) 210-2350

This program prepares students to take the national certification exam offered by the AAMA to become a Certified Medical Assistant (CMA). Medical assisting students at JMC receive transferable college credit for coursework. Many of the program graduates further their education by obtaining an A.S. Degree in Medical Assisting and/or Nursing.

The estimated program cost of $2,500 includes a $46/unit enrollment fee, a materials fee, various student fees, as well as uniform, books, certification exam, and clinical clearance process. Program cost at Modesto Junior College is very competitive with the cost of medical assisting programs offered by local trade schools. If you would like information on Financial Aid, call (209) 575-7700.

The Medical Assisting Program begins in the fall and spring semester of each year. It is a full-time, eight-month, certificate program offering training in administrative (front) and clinical (back) office procedures. In addition to the reasonable cost of this program, students of Modesto Junior College have the added benefit of college credit and comprehensive student services. If you have questions about program information, call Allied Health, 575-6362 or visit the Allied Health website at www.mjc.edu/alliedhealth.

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.
M: MEDICAL ASSISTING

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.
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.

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 IN A.S. MAJOR............................................................ 60
* The Health Education requirement has been waived for all Allied Health certificates and degrees.

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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>AP 50 Elementary Human Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 51 Psychology in Everyday Life</td>
<td>3 OR</td>
</tr>
<tr>
<td>PSYCH 101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>COMM 100 Fundamentals of Public Speaking</td>
<td>3 OR</td>
</tr>
<tr>
<td>COMM 102 Introduction to Human Communication</td>
<td>3  OR</td>
</tr>
<tr>
<td>COMM 130 Intercultural Communication</td>
<td>3</td>
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REQUIRED COURSES (MEDICAL ASSISTING)

[FALL SEMESTER]

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<tbody>
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<td>MIDAST 320 Introduction to Medical Assisting</td>
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<tr>
<td>MIDAST 321 Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>MIDAST 322 Medical Assisting Administrative Procedures</td>
<td>3.5</td>
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<tr>
<td>MIDAST 323 Medical Assisting Clinical Procedures</td>
<td>3</td>
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[SPRING SEMESTER]

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<td>MIDAST 324 Introduction to Diseases and Pharmacology</td>
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</tr>
<tr>
<td>MIDAST 325 Laboratory Procedures</td>
<td>3</td>
</tr>
<tr>
<td>MIDAST 326 Medical Assisting Practicum</td>
<td>7</td>
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</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD..............35.5
Music Program
(209) 575-6081

**AA: MUSIC 2-YEAR PLAN**

Students who follow the Career/Technical Education Pathway or the University Preparation Pathway and complete the requirements for the MJC Associate in Arts Degree in Music will satisfy lower-division requirements for the Bachelor of Music degree at 4-year institutions. The Bachelor of Music degree 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.

### 2-YEAR PLAN

- **1st Semester (Fall):**
  - MUST 101 (3 units)
- **2nd Semester (Spring):**
  - MUST 111 (3 units)
- **3rd Semester (Fall):**
  - MUST 121 (3 units)
  - Applied Music (MUS-A) 1 unit
  - Ensemble (MUS-M) 1 unit
  - Musicianship & G.L. Theory Aural Skills (MUS-T) 1 unit
- **4th Semester (Spring):**
  - MUST 122 (3 units)
  - Applied Music (MUS-A) 1 unit
  - Ensemble (MUS-M) 1 unit
  - Musicianship & G.L. Theory Aural Skills (MUS-T) 1 unit

**Music 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 first 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 specific 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 Ensemble, 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. Students who plan to pursue a bachelor 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.

**2-YEAR PLAN**

Students who follow the Associate Degree in Music, AA-T in Music, and transfer prepared for bachelor of arts degree in music degrees at California State University Music departments as well as other 4-year academic institutions. Students who follow the University Preparation Pathway and complete the requirements for the Bachelor of Music degree at 4-year institutions. The Bachelor of Music degree 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 arts degree in music programs at 4-year academic institutions.

### 2-YEAR PLAN

- **1st Semester (Fall):**
  - MUST 102 (3 units)
- **2nd Semester (Spring):**
  - MUST 112 (3 units)
  - Applied Music (MUS-A) 1 unit
  - Ensemble (MUS-M) 1 unit
  - Musicianship & G.L. Theory Aural Skills (MUS-T) 1 unit
- **3rd Semester (Fall):**
  - MUST 122 (3 units)
  - Applied Music (MUS-A) 1 unit
  - Ensemble (MUS-M) 1 unit
  - Musicianship & G.L. Theory Aural Skills (MUS-T) 1 unit
- **4th Semester (Spring):**
  - MUST 123 (3 units)
  - Applied Music (MUS-A) 1 unit
  - Ensemble (MUS-M) 1 unit
  - Musicianship & G.L. Theory Aural Skills (MUS-T) 1 unit

**Music 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 first 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 specific 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 Ensemble, 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. Students who plan to pursue a bachelor 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.

**Note:**

Students who follow the Career/Technical Education Pathway or the University Preparation Pathway are not exempt from this requirement.

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**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 first 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 specific 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 Ensemble, 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. Students who plan to pursue a bachelor 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 Pathway are not exempt from this requirement.
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 first day of class consisting of the following topics: music 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 or 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 bachelor's 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 Pathway are not exempt from this requirement.

APPLICATIONS AND ENROLLMENT

A.A.-T DEGREE: MUSIC

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 and 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, or "P" (Pass) 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.

REQUIRED CORE: (16 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSA 121 [NP] Music Theory 1</td>
<td>3</td>
</tr>
<tr>
<td>MUSA 122 [NP] Music Theory 2</td>
<td>3</td>
</tr>
<tr>
<td>MUSA 123 [NP] Music Theory 3</td>
<td>3</td>
</tr>
<tr>
<td>MUSA 124 [NP] Music Theory 4</td>
<td>3</td>
</tr>
<tr>
<td>MUSA 131 [NP] Aural Skills 1</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 132 [NP] Aural Skills 2</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 133 [NP] Aural Skills 3</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 134 [NP] Aural Skills 4</td>
<td>1</td>
</tr>
</tbody>
</table>

APPLIED COURSES, CHOOSE FROM THE FOLLOWING OFFERINGS ACCORDING TO AREA OF CONCENTRATION. FOUR SEMESTERS / FOUR UNITS ARE REQUIRED:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSA 124 [NP] Applied Piano</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 145 [NP] Applied Classical Guitar</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 153 [NP] Applied Vocal Repertoire 1</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 154 [NP] Applied Vocal Repertoire 2</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 163 [NP] Applied Music (Violin &amp; Viola)</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 164 [NP] Applied Music (Cello &amp; Bass)</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 173 [NP] Applied Music (Brass &amp; Percussion) 1</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 183 [NP] Applied Music (Woodwinds)</td>
<td>1</td>
</tr>
</tbody>
</table>

ENSEMBLE COURSES: CHOOSE FROM THE FOLLOWING OFFERINGS ACCORDING TO AREA OF CONCENTRATION. FOUR SEMESTERS / FOUR UNITS ARE REQUIRED:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSA 145 [NP] Guitar Orchestra</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 155 [NP] Concert Choir</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 156 [NP] Chamber Choir</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 161 [NP] Community Orchestra</td>
<td>1</td>
</tr>
<tr>
<td>MUSA 165 [NP] String Orchestra</td>
<td>1</td>
</tr>
</tbody>
</table>
MUSE 175 [NP] Symphonic Band .......................................................... 1
MUSE 181 [NP] Jazz Band ................................................................. 1

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

UNITS REQUIRED FOR IGETC/CSU BREADTH .................................. 37-39
CSU TRANSFERABLE ELECTIVES (AS NEEDED) .............................. 3-5
DOUBLE-COUNTED UNITS ......................................................... 6

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

*Note: Double-counting units 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.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Decode and interpret musical notation and symbols through their instrument and/or voice.
2. Use basic musical notation in composition and performance.
3. Perform and stylistically interpret music on their applied instrument/voice in an ensemble and/or in a solo setting.
4. Discuss the scope, variety, structure, and form of works in the canon of traditional western art music orally and in writing.

To earn an Associate in Arts Degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 109) or the University Preparation Pathway (p. 103) 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 121. Students who do not meet entrance proficiencies will be encouraged to enroll in MUST 101 prior to enrollment in MUST 121.

REQUIRED COURSES IN MUSIC THEORY- COMPLETE 20 UNITS

MUST 121 [1] Keyboard Skills 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 141 [1] Musicanship and Guided Listing 1 .................................. 1
MUST 142 [2] Musicanship and Guided Listing 2 .................................. 1
MUST 143 [3] Musicanship and Guided Listing 3 .................................. 1
MUST 144 [4] Musicanship and Guided Listing 4 .................................. 1

ENSEMBLE-COMPLETE 4 UNITS

*Students whose primary instrument is woodwinds, brass, or percussion and who intend to participate in the Symphonic Band as their primary ensemble must enroll for a total of 8 units.

MUST 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

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. Orchestra instrumentalists will enroll in Community Orchestra and the appropriate applied strings course. Band instrumentalists will enroll in Symphony 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 their primary instrument/voice when choosing ensemble and applied music courses.

PIANO** - COMPLETE 2 UNITS

MUSA 121 [NP] Keyboard Skills 1 ....................................................... 1
MUSA 122 [NP] Piano Enrichment ...................................................... 1
MUSA 123 [NP] Intermediate Piano .................................................... 1
MUSA 124 [NP] Applied Piano ............................................................ 1

**Students whose primary instrument is piano may count their applied studies in piano toward this requirement.

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

RECOMMENDED MUSIC ELECTIVES

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 ........................................ 2
MUSP 153 [NP] Advanced Musical Theatre Workshop ....................... 2

TOTAL OPTIONAL MUSIC ELECTIVES ............................................. 3-7
Network Administration

PROGRAM (209) 575-6129

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.

* Note: 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.

CERTIFICATE OF ACHIEVEMENT: COMPUTER NETWORK ADMINISTRATION

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. Note: 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 topologies, client and server operating system configuration, network security principals, and directory services.
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

CSCI 210 [1] UNIX/Linux OS .................................................................3

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. Note: 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

CSCI 201 [1] General Computer Literacy .................................................3
CMPET 210 [2] Intermediate Personal Computer Assembly, Upgrading, and Repair .... (CompTIA A) ..................................................3
CSCI 240 [2] Networking Essentials .......................................................4

ELECTIVE COURSES – COMPLETE 3 UNITS


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

Nursing: Associate Degree Nursing (ADN) PROGRAM

(209) 575-6362

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 (BRN). 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 morning, evening, night and weekend hours. During the five-week Leadership Preceptorship in Nurse 278, 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 approximately $2,500. Second, third, and fourth semester 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 a pre-licensure readiness examination. Daily access to a computer and the internet is required for student success.

For more information on financial aid, call (209) 575-7700. For more information about the nursing program and the selection process, please enroll in NURSE 115: Introduction to Nursing Majors. If you have questions about program information, call Allied Health, (209) 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
- Official Transcripts on File in MJC Enrollment Services: All transcripts (from colleges other than MJC and Columbia College (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/NP or CR/NC
- Score of 5 on IB exam; Mathematics HL

Bachelor degree holders are considered to have met this requirement.

In accordance with the California Nursing Practice Act and the Board of Registered Nursing (BRN), the California Code of Regulations (CCR) Section 1430 states: An approved nursing program shall have a process for a student to obtain credit for previous education or for other acquired knowledge in the field of nursing through equivalence, challenge examinations, or other methods of evaluation. The program shall make the information available in published documents, such as college catalog or student handbook, and online. Students interested in obtaining credit for previous education or for other acquired knowledge in the field of nursing should reference the current MJC catalog under “Credit.” In addition, the student may make an appointment with a nursing advisor by calling (209) 575-6362. A nursing advisor will inform the student of available options and assist the student in completing the process for the appropriate option such as course equivalency, course substitution, upper division course credit, course challenges, advanced placement and/or theory and skill set critical element testing.

PROGRAM APPLICATION

The ADN program application is online. 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

The ADN Program utilizes a multicriteria screening process for admission.

MULTICRITERIA SCREENING PROCESS

The ADN program selects students based on a Multicriteria Screening Process. Detailed information is posted on the ADN website. This selection model is based on Assembly Bill 1559. Applicants will be evaluated on 1) academic degree, relevant licenses or certificates, relevant work or volunteer experience, 2) GPA in relevant coursework, 3) life experiences or special circumstances, 4) proficiency in a language other than English and the 5) 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 in the MJC Library & Learning Center, and Assessment Technologies Institute (ATI) at www.atitesting.com.

Prospective nursing students are required to have a total scaled score of 427 (62%) or higher on 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 www.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 six 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 tuberculosis skin test (TST) 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 facilities to complete a criminal 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 (AHA) for all accepted applicants. Students are required to purchase an AHA BLS for Healthcare Provider textbook.
SCHOLASTIC REQUIREMENTS

Continuation in the ADN Program is dependent upon completion of all courses 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 qualify for the NCLEX-RN. In the ADN program, seventy-six percent (76%) is the minimum score required to obtain a grade of C.

POLICY FOR DENIAL OF LICENSURE

The California BRN 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.rm.ca.gov and search Enforcement and then License Discipline and Convictions prior to applying to the ADN Program.

- 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 successfully completed by the end of the 4th semester of the program to be considered a graduate of the ADN Program and be eligible to take the NCLEX-RN. 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. Health Education requirements has been waived for all Allied Health certificates and degrees.

A.S. DEGREE: NURSING (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 BRN.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student:

1. Formulates a nursing diagnosis through observation of the client’s physical condition and behavior, and through interpretation of information obtained from the client and others, including the health team.
2. Formulates a care plan, in collaboration with the client, which ensures that direct and indirect nursing care services provide for the client’s safety, comfort, hygiene, and protection, and for disease prevention and restorative measures.
3. Performs skills essential to the kind of nursing action to be taken, explain the health treatment to the client and family and teach the client and family how to care for the client’s health needs.
4. Delegates tasks to subordinates based on the legal scope of practice of the subordinates and on the preparation and capability needed in the tasks to be delegated, and effectively supervise nursing care being given by subordinates.
5. Evaluates the effectiveness of the care plan through observation of the client’s physical condition and behavior, signs and symptoms of illness, and reactions to treatment and through communication with the client and health team members, and modifies the plan as needed.
6. Acts as the client’s advocate, as circumstances require, by initiating action to improve health care or to change decisions or activities which are against the interests or wishes of the client, and by giving the client the opportunity to make informed decisions about health care before it is provided.
7. Employs concepts of the Roy Adaptation Model to individualize patient-centered care.

PROGRAM REQUIREMENTS

To earn an Associate in Science Degree in Nursing, the student must complete the requirements detailed in the Career Technical Education Pathway* or the University Preparation Pathway* in addition to the nursing coursework. Consult with an advisor for selection of courses.

PROGRAM PREREQUISITES

ANAT 125 Human Anatomy ................................................................. 4
MICRO 101 Microbiology ................................................................. 4
PHYSIO 101 Introductory Human Physiology ..................................... 4
ENGL 101 Composition and Reading ............................................... 3 AND
PSYCH 141 Human Lifespan Development ...................................... 3
Beginning fall 2016, Psychology 141: Human Lifespan Development will be the required psychology course prerequisite to the ADN program.

Psychology 101: General Psychology or the equivalent course taken prior to fall 2016 for acceptance into the ADN program will continue to be accepted.

COMPLETE ONE COURSE FROM THE FOLLOWING:

ANTHR 102 Cultural Anthropology .................................................. 3
SOCI 101 Introduction to Sociology .................................................. 3
SOCI 102 Social Problems in the United States ................................ 3
SOCI 123 Sociology of the Family ..................................................... 3
SOCI 150 Ethnicity and Culture in America ....................................... 3
SOCI 154 African-American Cultures and History ......................... 3
SOCI 156 Mexican Culture in the United States ......................... 3

COMPLETE ONE COURSE FROM THE FOLLOWING:

COMM 100 Fundamentals of Public Speaking ................................. 3
COMM 102 Introduction to Human Communication ..................... 3
COMM 106 Group & Organizational Communication .................. 3
COMM 110 Persuasion ................................................................. 3

TOTAL UNITS IN PREREQUISITE COURSES............................................. 24

PROGRAM REQUIREMENTS

[FIRST SEMESTER]

NURSE 270 Nursing Process: Pharmacology ..................................... 2
NURSE 271 Nursing Process: Fundamentals ..................................... 6.5

[SECOND SEMESTER]

NURSE 272 Nursing Process: Geriatric Nursing ............................... 1
NURSE 273 Nursing Process: Maternal-Child Nursing ................... 6.5

[THIRD SEMESTER]

NURSE 274 Nursing Process: Mental Health .................................... 3
NURSE 275 Nursing Process: Medical - Surgical ............................ 7

[FOURTH SEMESTER]

NURSE 278 Nursing Process: Advanced Medical - Surgical ............. 10

TOTAL UNITS IN NURSING MAJOR ....................................................... 36

TOTAL UNITS with PREREQUISITE COURSEWORK & NURSING MAJOR COURSEWORK .......................................................... 60

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 or the University Preparation Pathway in addition to the nursing coursework. Consult with an advisor for selection of courses. (5.5 units)

MINIMUM UNITS IN A.S. DEGREE .................................................. 65.5

ELECTIVE COURSES (NURSING: WORK EXPERIENCE)

Work experience in nursing is offered for students who have completed the first semester of the ADN program. Nurse Extern at a contracted facility is required.

NURSE 361 Work Experience: Nursing A.......................................... 1
NURSE 362 Work Experience: Nursing B.......................................... 2
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 BRN.

The LVN to ADN Advanced Placement Pathway begins in the fall and spring semesters of each year. It is a two-semester pathway. Students enter in the third semester of the ADN Program. Although most classes are scheduled during the day, clinical experiences may include morning, evening, night, and weekend hours. During the five-week Leadership Preceptorship (NURSE 278), students will 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 approximately $4,000. Startup costs for third semester are approximately $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 required for student success. For information on financial aid, call (209) 575-7700. For academic advising contact Allied Health, (209) 575-6362. For program information, call Allied Health, (209) 575-6362 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**
- **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/NP or CR/NC
- Score of 5 on IB exam; Mathematics HL

Bachelor's degree holders are considered to have met this requirement.

PATHWAY APPLICATION

The application is online. 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

MULTICRITERIA SCREENING PROCESS

The ADN program selects students based on a Multicriteria Screening Process. Detailed information is posted on the ADN website. This selection model is based on Assembly Bill 1559. Applicants will be evaluated on 1) academic degree, relevant licenses or certificates, relevant work or volunteer experience, 2) GPA in relevant coursework, 3) life experiences or special circumstances, 4) proficiency in a language other than English and the 5) 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 in the MJC Library & Learning Center, and from Assessment Technologies Institute (ATI) at www.atitesting.com.

Prospective nursing students are required to have a total scaled score of 427 (62%) or higher on 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 six 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 tuberculin skin test (TST) 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 facilities to complete a criminal background check and be cleared by the clinical facility in order to participate in the clinical experience. See policy for denial of licensure.

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 (AHA) for all accepted applicants. Students are required to purchase an AHA BLS for Healthcare text book.

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). In the ADN program, seventy-six percent (76%) is the minimum score required to obtain a grade of C.

POLICY FOR DENIAL OF LICENSURE

The California BRN 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.bn.ca.gov and search Enforcement and then License Discipline and Convictions prior to applying to the ADN Program.

- 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 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 successfully completed by the end of the 4th semester of the program to be considered a graduate of the MIC ADN Program and be eligible to take the NCLEX-RN. 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 MIC, 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**

Upon satisfactory completion of this award, the student:

1. Formulates a nursing diagnosis through observation of the client’s physical condition and behavior, and through interpretation of information obtained from the client and others, including the health care team.
2. Formulates a care plan, in collaboration with the client, which ensures that direct and indirect nursing care services provide for the client’s safety, comfort, hygiene, and protection, and for disease prevention and restorative measures.
3. Performs skills essential to the kind of nursing action to be taken, explain the health treatment to the client and family and teach the client and family how to care for the client’s health needs.
4. Delegates tasks to subordinates based on the legal scopes of practice of the subordinates and on the preparation and capability needed in the tasks to be delegated, and effectively supervise nursing care being given by subordinates.
5. Evaluates the effectiveness of the care plan through observation of the client’s physical condition and behavior, signs and symptoms of illness, and reactions to treatment and through communication with the client and health team members, and modifies the plan as needed.
6. Acts as the client’s advocate, as circumstances require, by initiating action to improve health care or to change decisions or activities which are against the interests or wishes of the client, and by giving the client the opportunity to make informed decisions about health care before it is provided.
7. Employs concepts of the Roy Adaptation Model to individualize patient-centered care.

**A.S. DEGREE NURSING: LVN TO ADN (RN) ADVANCED PLACEMENT PATHWAY PREREQUISITES**

Must be a Licensed Vocational Nurse with an active license and IV certification in California. 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.

NURSE 259 LVN Transition: Role Change Preparation ..............................................2
ANAT 125 Human Anatomy .................................................................4
MICRO 101 Microbiology ..........................................................4
PHYSIO 101 Introductory Human Physiology ............................................4
ENGL 101 Composition and Reading.........................................................3 AND
PSYCH 141 Human Lifespan Development ........................................3
Beginning fall 2016, Psychology 141: Human Lifespan Development will be the required psychology course prerequisite to the ADN program.

Psychology 101: General Psychology or the equivalent course taken prior to fall 2016 for acceptance into the ADN program will continue to be accepted.

**COMPLETE ONE COURSE FROM THE FOLLOWING:**

ANTHR 102 Cultural Anthropology ...............................................3
SOCIO 101 Introduction to Sociology ....................................................3
SOCIO 102 Social Problems in the United States ..................................3
SOCIO 125 Sociology of the Family .....................................................3
SOCIO 150 Ethnicity and Culture in America .......................................3
SOCIO 154 African-American Cultures and .................................3
SOCIO 156 Mexican Culture in the United States ..........................3

**COMPLETE ONE COURSE FROM THE FOLLOWING:**

COMM 100 Fundamentals of Public Speaking ......................................3
COMM 102 Introduction to Human Communication ..............................3
COMM 106 Group & Organizational Communication ..........................3
COMM 110 Persuasion ........................................................................3

**TOTAL ADVANCED PLACEMENT PATHWAY PREREQUISITE UNITS ............... 26**

**A.S. DEGREE NURSING: LVN TO ADN (RN) ADVANCED PLACEMENT PATHWAY REQUIREMENTS**

**[FIRST SEMESTER]**

NURSE 274 Nursing Process: Mental Health ........................................3
NURSE 275 Nursing Process: Medical - Surgical .................................7

**[SECOND SEMESTER]**

NURSE 278 Nursing Process: Advanced Medical-Surgical ...................10

**TOTAL UNITS IN A.S. DEGREE NURSING: LVN TO ADN (RN) ADVANCED PLACEMENT PATHWAY .......................................................... 20**

**TOTAL UNITS WITH PREREQUISITE COURSEWORK FOR A.S. DEGREE NURSING: LVN TO ADN (RN) ADVANCED PLACEMENT PATHWAY ............... 46**

To earn an Associate in Science Degree in Nursing the student must complete the requirements detailed in the Career Technical Pathway (p. 109) or the University Preparation Pathway (p. 103) 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 ......................................................... 51.5**

**NURSING: LVN 30 UNIT OPTION (LVN TO RN)**

In addition to the LVN to ADN Advanced Placement Pathway, there is also an LVN 30 Unit Option which prepares students to take the NCLEX-RN 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.
Nursing: Nurse Assistant

PROGRAM (209) 575-6362

The Nurse Assistant Program at Modesto Junior College is a one-semester course that includes 50 hours of classroom instruction and 100 hours of supervised clinical experience within the guidelines set by the California Department of Public Health (CDPH). After completing the course with a C grade 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 aide and competency evaluation legislation. American Red Cross testing is available at www.mjc.edu/alliedhealth and search Nurse Assistant Program.

SKILLS RECOGNITION: NURSE ASSISTANT

PROGRAM LEARNING OUTCOMES

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 professional staff.
5. Pass the state of California certification examination as a Certified Nurse Assistant (CNA).

REQUIRED CURRICULUM

NURS S2 Nurse Assistant ............................................................. 5 AND
NURSK 800 Nursing Skills Development ........................................ 0

TOTAL UNITS FOR SKILLS RECOGNITION AWARD......................... 5

ADDITIONAL REQUIREMENTS FOR STUDENTS ENROLLED IN NURSE S2

Please Note: In order to complete the health clearance process in a timely manner, students who are enrolled in NURSE S2 must attend a mandatory orientation. Enrolled students will be notified via student email of the date and time of the orientation. Instructions for completing the health clearance will be provided at the orientation. It is expected that enrolled students will have already begun the health clearance process prior to the first day of class.

CLINICAL CLEARANCE

HEALTH CLEARANCE

- A medical history and physical examination completed by a physician, physician's assistant, or nurse practitioner within three 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 tuberculosis skin test (TST) 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 criminal background check and Live Scan to be cleared by California Department of Public Health (CDPH) in order to participate in the clinical experience. The students will not be charged for this requirement.

NURSE ASSISTANT CERTIFICATION APPLICATION (HS-283B)

- Nurse S2 students will receive required forms and instructions on completing the CDPH 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 submitted 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 CDPH. All other convictions not listed, except minor traffic violations, are subject to department review and require that you submit additional information.

TO REQUEST CLEARANCE FOR PRIOR CONVICTION(S) OR DISCIPLINARY ACTION, CONTACT:

California Department of Public Health
ATCS MS 3201
PO Box 997416
Sacramento, CA 95899-7416
(916) 327-2445
www.cdph.ca.gov
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 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 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 Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFADM 315</td>
<td>Today’s Office</td>
<td>2</td>
</tr>
<tr>
<td>OFADM 320</td>
<td>Telephone Techniques</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 239</td>
<td>Introduction to Spreadsheet Software</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 262</td>
<td>Introduction to Databases</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 375</td>
<td>10-Key on the Computer</td>
<td>1</td>
</tr>
<tr>
<td>BUSAD 210</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 310</td>
<td>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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFADM 202</td>
<td>Intermediate Keyboarding</td>
<td>2</td>
</tr>
<tr>
<td>OFADM 231</td>
<td>Intermediate Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>OFADM 311</td>
<td>Business Proofreading and Editing</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 314</td>
<td>Office Procedures &amp; Technologies</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 315</td>
<td>Today’s Office</td>
<td>2</td>
</tr>
<tr>
<td>OFADM 259</td>
<td>Introduction to Spreadsheet Software</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 261</td>
<td>Introduction to Databases</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 363</td>
<td>Understanding the Internet</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 320</td>
<td>Telephone Techniques</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 210</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 232</td>
<td>Advanced Word Processing &amp; Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 292</td>
<td>10-Key on the Computer</td>
<td>1</td>
</tr>
<tr>
<td>CMPGR 215</td>
<td>Business Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 50</td>
<td>Business Computations</td>
<td>3</td>
</tr>
</tbody>
</table>

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

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. 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 18 UNITS

OFADM 259 [2] Introduction to Spreadsheets ......................................................... 1
OFADM 301 [1] Beginning Keyboarding ................................................................. 1.5
OFADM 302 [1] Beginning Document Processing .................................................. 1.5
OFADM 303 [1] Business .......................................................... 1.5
OFADM 304 [1] Professional English for Business ............................................. 3
OFADM 305 [2] Records Management ................................................................. 3
OFADM 314 [NP] Office Procedures & Technologies .......................................... 3
OFADM 320 [1] Telephone Techniques ................................................................. 1
OFADM 363 [2] Introduction to the Internet ........................................................... 1

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .................... 18

Office Support

PROGRAM
(209) 575-6129

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 Workforce Development at (209) 575-6885
A.A.-T DEGREE: PHILOSOPHY

Philosophy is the study of fundamental questions such as: What is ultimately real? What is the good life? Does God exist? The Associate in Arts in Philosophy for Transfer (AA-T in Philosophy) degree includes lower division coursework that is required for transfer and is an excellent way to refine one’s critical reasoning and rational decision-making skills, making it a useful degree for a wide variety of career goals. The Associate in Arts in Philosophy for Transfer (AA-T in Philosophy) degree includes courses that help students to construct arguments, to read classic texts carefully, and to formulate crucial questions while providing a deeper grasp of our intellectual heritage.

The Associate in Arts in Philosophy for Transfer (AA-T in Philosophy) degree is intended for students who plan to complete a bachelor’s degree in Philosophy 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.

THE FOLLOWING IS REQUIRED FOR THE ASSOCIATE IN ARTS IN PHILOSOPHY-FOR-TRANSFER (AA-T IN PHILOSOPHY) 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. Obtainment of a minimum grade point average of 2.0. All courses within the major must be completed with a C or better or "P" (Pass).

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this award, the student should be prepared to:
1. Read and analyze key arguments found in primary texts from the philosophical tradition.
2. Construct a clearly written argument employing various philosophical tools, including consideration of counter-arguments, in the critical evaluation of a philosophical primary text.
3. Explain and apply deductive and inductive reasoning, critical thinking, and basic methods of formal logic.
4. Describe the historical development of philosophical ideas from ancient to modern philosophy, including terms employed in the discussion of these developments on fundamental questions that include topics of reality, knowledge, and value.

PROGRAM REQUIREMENTS

To receive an Associate of Arts for transfer degree in Philosophy, the student must complete the requirements detailed in the Transfer Model Curriculum Pathway. All courses must be completed with a C or better or "P" (Pass).

REQUIRED COURSES - SELECT TWO (6 UNITS)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 101</td>
<td>Symbolic Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 101</td>
<td>Philosophy</td>
<td>OR</td>
</tr>
<tr>
<td>PHIL 111</td>
<td>Ethics: Theory and Application</td>
<td>3</td>
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</table>

LIST A - SELECT ONE (3 UNITS)

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 120</td>
<td>History of Philosophy: Ancient</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 121</td>
<td>History of Philosophy: Modern</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 105</td>
<td>Critical Reasoning and Analytic Writing</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 107</td>
<td>Philosophy of Science</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 123</td>
<td>Twentieth Century Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 130</td>
<td>Political Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST B - SELECT TWO (6 UNITS)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any course</td>
<td>from List A not already used</td>
<td>3</td>
</tr>
<tr>
<td>HIST 104</td>
<td>Western Civilization to 1650</td>
<td>3</td>
</tr>
<tr>
<td>HIST 105</td>
<td>Western Civilization since 1650</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 115</td>
<td>Religion: Philosophical and Comparative Inquiry</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST C - SELECT ONE (3 UNITS)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any course</td>
<td>from List A or B not already used</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 113</td>
<td>Philosophy and Art</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 135</td>
<td>Environmental Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 140</td>
<td>Philosophy and Film</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR THE MAJOR ......................................................... 18

TOTAL UNITS THAT MAY BE DOUBLE-COUNTED .................................. 6-18

GENERAL EDUCATION (CSU GE OR IGETC) UNITS .................................. 37-39

ELECTIVE (CSU TRANSFERABLE UNITS) ............................................... 11-21

TOTAL DEGREE UNITS (MAXIMUM) ..................................................... 60

*Note: Double counting courses in GE and the major is permissible.

Guidance and Activities requirements are not required for this degree.

Phlebotomy

Contact Workforce Development at (209) 575-6885
A. A. DEGREE: PHOTOGRAPHY

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.

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 in 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.

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 109) or the University Preparation Pathway (p. 103) 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 to ensure that all required transfer courses are completed.

REQUIRED COURSES - COMPLETE 18 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 124 [2]</td>
<td>Color and Design 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 168 [1]</td>
<td>Survey of Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 170 [1]</td>
<td>Basic Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 175 [3]</td>
<td>Color Photography</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES - COMPLETE AT LEAST 2 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 102 [NP]</td>
<td>Introduction to Computer Graphics</td>
<td>3 OR</td>
</tr>
<tr>
<td>CMPGR 202</td>
<td>Introduction to Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ART 163 [NP]</td>
<td>History of Modern Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 165 [NP]</td>
<td>History of Art 2</td>
<td>3</td>
</tr>
<tr>
<td>ART 169 [NP]</td>
<td>Survey of Asian Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 192 Professional Practices</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

MINIMUM UNITS IN A.A. MAJOR ............................................. 20-21

*Photography courses are listed under ART courses starting on page 250.

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. Relate basic motor skills and patterns to concepts, theories, and methods common to Kinesiology.
2. Consider how the body systems and structures work together to allow movement to occur.
3. Assess measurements and types of movement to evaluate individual performance.
4. Enter a University level Kinesiology program.

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. All courses within the major must be completed with a C or better. A “P” (Pass).

ADTs also require that students must earn a C or better or “P” (Pass) in all courses required for the major or area of emphasis.

REQUIRED CORE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 124 [NP]</td>
<td>Introduction to Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>ANAT 125 [NP]</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>PHYSIO 101 [NP]</td>
<td>Introduction to Physiology</td>
<td>4</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 Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEC 102 [NP]</td>
<td>Water Aerobics</td>
<td>1</td>
</tr>
<tr>
<td>PEC 108 [NP]</td>
<td>Deep Water Aerobics</td>
<td>1</td>
</tr>
</tbody>
</table>
A.A. DEGREE: PHYSICAL EDUCATION

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

1. Develop and implement safe, comprehensive physical activity protocols.

2. Demonstrate competence in the major concepts, theoretical perspectives, and current research dealing with physical activity and sport.

3. Identify and apply basic rules and strategies of various physical activities.

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. 103) or the University Preparation Pathway (p. 103) 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] 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 .................................................. 2
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 110 [1, 3] Officiating: Spring Sports .............................................. 3
PE 113 [2, 4] Offensive/Defensive Softball Theory ............................. 2
PE 114 [1, 3] Cross Country Concepts ................................................. 2
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
DANCE 111 [NP] Modern Dance ..................................................... 1
DANCE 112 [NP] Modern Dance ...................................................... 2
DANCE 113 [NP] Modern Dance ...................................................... 3
DANCE 121 [NP] Ballet ................................................................. 1
DANCE 122 [NP] Ballet ................................................................. 2
DANCE 123 [NP] Ballet ................................................................. 3
DANCE 124 [NP] Ballet ................................................................. 4
DANCE 131 [NP] Jazz ................................................................. 1
DANCE 132 [NP] Jazz ................................................................. 2
DANCE 133 [NP] Jazz Intermediate/Advanced .................................. 1
DANCE 141 [NP] Hip Hop ............................................................... 1
PE 102 [NP] Water Aerobics ............................................................. 1
PE 104 [NP] Adapted Strength Development .................................. 1
PE 106 [NP] Functional Water Exercise ......................................... 1
PE 107 [NP] Adapted Swimming ..................................................... 1
PE 108 [NP] Adapted Aquatics ....................................................... 1
PE 119 [NP] Adapted Sports ......................................................... 1
PE 108 [NP] Deep Water Aerobics ................................................ 1
PE 111 [NP] Beginning Racquetball ................................................ 1
PE 112 [NP] Intermediate Racquetball .......................................... 1
PE 128 [NP] Aerobics ................................................................. 1
PE 140 [NP] Exercise for Fitness .................................................... 1
PE 143 [NP] Beginning Golf ........................................................... 1
PE 144 [NP] Intermediate Golf ...................................................... 1
PE 145 [NP] Track and Field ......................................................... 1
PE 146 [NP] Beginning Tennis ....................................................... 1
PE 147 [NP] Yoga for Better Health ............................................... 1
PE 157 [NP] Advanced Judo .......................................................... 1
PE 159 [NP] Fall Spirit Leadership Training ................................... 2

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.
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.S.-T IN PHYSICS) 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 California State University-General Education-Breadth pattern
   (B) The Intersegmental General Education Transfer Curriculum (IGETC) pattern.

2. Obtainment of a minimum grade point average of 2.0. All courses within the A.T.s also require that students must earn a C or better or a "P" (Pass) in all courses required for the major or area of emphasis.

REQUIRED COURSES – COMPLETE 27 UNITS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 101 [NP]</td>
<td>General Physics: Mechanics</td>
</tr>
<tr>
<td>PHYS 102 [NP]</td>
<td>General Physics: Waves, Thermodynamics, and Optics</td>
</tr>
</tbody>
</table>

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

PEC 160 [NP] Spring Spirit Leadership Training ........................................ 1
PEC 162 [NP] Aikido .................................................................................... 1
PEC 163 [NP] Aikido 2 ................................................................................ 1
PEC 164 [NP] Self-Defense ......................................................................... 1
PEC 165 [NP] Judo ....................................................................................... 1
PEC 166 A X [NP] Intermediate Judo .............................................................. 0.5, 1
PEC 168 [NP] Beginning Swimming ............................................................ 1
PEC 169 [NP] Intermediate Swimming ........................................................ 1
PEC 170 [NP] Advanced Swimming .............................................................. 1
PEC 171 [NP] Swim for Fitness ..................................................................... 1
PEC 172 [NP] Lifeguard Training ................................................................. 1
PEC 175 [NP] Beginning Tennis ................................................................... 1
PEC 176 [NP] Intermediate Tennis ............................................................... 1
PEC 177 [NP] Advanced Tennis ................................................................... 1
PEC 178 [NP] Tournament Tennis ............................................................... 1
PEC 179 [NP] Track and Field ..................................................................... 1
PEC 182 [NP] Training for Distance Running .............................................. 1
PEC 183 [NP] Volleyball ............................................................................. 1
PEC 184 [NP] Power Volleyball ................................................................... 1
PEC 186 [NP] Intermediate Volleyball ......................................................... 1
PEC 187 [NP] Pilates for Fitness ................................................................... 1
PEC 190 [NP] Advanced Water Polo ........................................................... 1
PEC 191 [NP] Power Lifting ........................................................................ 1
PEC 195 [NP] Weight Training ................................................................... 1
PEC 197 [NP] Advanced Weight Training .................................................... 1
PEM 108 [NP] Baseball ............................................................................. 1
PEM 112 [NP] Beginning Basketball ........................................................... 1
PEM 113 [NP] Intermediate Basketball ....................................................... 1
PEM 114 [NP] Advanced Basketball ............................................................ 1
PEM 140 [NP] Touch Football and Kanaki .................................................... 1
PEM 141 X [NP] Advanced Touch Football ................................................ 0.5, 1
PEM 162 [NP] Soccer ................................................................................. 1
PEM 196 [NP] Advanced Wrestling ............................................................ 1
PEW 164 [NP] Women's Indoor-Outdoor Soccer ......................................... 1
PEW 166 [NP] Women's Self-Defense ......................................................... 1
PEW 167 [NP] Women's Beginning Judo ...................................................... 1
PEW 180 [NP] Women's Softball ................................................................. 1
PEW 192 [NP] Women's Weight Training .................................................... 1
PEV 100 [NP] Varsity Baseball .................................................................... 3
PEV 105 [NP] Men's Varsity Basketball (Fall) ........................................... 2
PEV 106 [NP] Men's Varsity Basketball (Spring) ......................................... 2
PEV 110 [NP] Men's Varsity Cross-Country ................................................. 3
PEV 115 [NP] Varsity Football .................................................................... 3
PEV 120 [NP] Men's Varsity Golf ................................................................. 3
PEV 122 [NP] Men's Varsity Soccer ............................................................. 3
PEV 125 [NP] Men's Varsity Swimming and Diving .................................... 3
PEV 130 [NP] Men's Varsity Tennis ............................................................. 3
PEV 135 [NP] Men's Varsity Track and Field .............................................. 3
PEV 136 [NP] Men's Varsity Water Polo ..................................................... 3
PEV 145 [NP] Varsity Wrestling ................................................................. 3
PEVW 100 [NP] Women's Varsity Basketball (Fall) .................................... 3
PEVW 101 [NP] Women's Varsity Basketball (Spring) ......................... 1.5
PEVW 103 [NP] Women's Varsity Cross-Country ..................................... 3
PEVW 115 [NP] Women's Varsity Golf ....................................................... 3
PEVW 120 [NP] Women's Varsity Softball .................................................. 3
PEVW 123 [NP] Women's Varsity Soccer ................................................... 3
PEVW 125 [NP] Women's Varsity Swimming and Diving ................................ 3
PEVW 130 [NP] Women's Varsity Tennis .................................................... 3
PEVW 135 [NP] Men's Varsity Track and Field ........................................... 3
PEVW 140 [NP] Women's Varsity Volleyball ............................................ 3
PEVW 145 [NP] Women's Varsity Water Polo ............................................. 3
**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, fertilization, 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. Apply general plant science skills for technical employment in the plant science management industry (agronomy and oleoculture).
2. Apply the principles of ecology, soil science, and plant science to agronomy and oleoculture crop management problems.
3. 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 259ABCD [NP] Agricultural Work Experience .............................. 1 - 4

**II. AGRICULTURE SCIENCE BREATH 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] Agricultural Computer Applications .............................. 3
- AGEC 210 [NP] Elements of Agricultural Economics ............................. 3 OR
- AGEC 200 [NP] Agricultural Accounting and Analysis ............................ 3

**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. Apply general plant science skills for technical employment in the plant science management industry (botany, horticulture, and enology).
2. Apply the principles of ecology, soil science, and plant science to pomology and viticulture management problems.
3. 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 259ABCD [NP] Agricultural Work Experience .............................. 1 - 4

**II. AGRICULTURE SCIENCE BREATH 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] Agricultural Computer Applications .............................. 3
- AGEC 210 [NP] Elements of Agricultural Economics ............................. 3 OR
- AGEC 200 [NP] Agricultural Accounting and Analysis ............................ 3

**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 this degree.*
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 259D, or a combination of AG 259A-C, or a combination of AG 249 and AG 259A-B.

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. Employ the scientific method to solve problems in the laboratory and in the natural environment.
2. Apply the principles of ecology, soil science, silviculture, cartography, and facilities maintenance and development to sustainable resources management problems.
3. Employ environmental stewardship 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 259ABCD [NP] Agricultural Work Experience ...................................... 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
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 3 UNITS
NR 200 [NP] Soils ............................................................................. 3

COMPLETE 6 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
PLSC 241 [NP] Viticulture .................................................................. 3

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 5-6 UNITS
NR 222 [NP] Native Tree and Shrub Identification ...................................... 3
EHIS 210 [NP] Introduction to Environmental Horticulture Science ............... 3
PLSC 255 [NP] Plant Pest Control .......................................................... 3
AGM 230 [NP] Field Surveying ............................................................... 2
PLSC 260 [NP] Plant Disease Control ........................................................ 3
AGGE 146 [NP] Agriculture, Environment and Society .................................. 3
Any course not already taken in Area III above

TOTAL UNITS ................................................................................. 28-29

*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 259D, or a combination of AG 259A-C, or a combination of AG 249 and AG 259A-B.

Political Science

PROGRAM
(209) 575-6129

A.A.-T DEGREE: POLITICAL SCIENCE

Political Science is a practical liberal arts major. Students who pursue the Associate in Arts in Political Science for Transfer (AA-T in Political Science) degree will analyze politics and government at the local, state, national, and global levels. Students will also acquire substantive knowledge of American Politics, Political Theory, Comparative Politics, and International Relations. The study of Political Science provides students with the opportunity to explore how individuals can make a difference in their political communities. The Associate in Arts in Political Science for Transfer (AA-T in Political Science) degree is intended for students who plan to complete a bachelor’s degree in Political Science 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.
THE FOLLOWING IS REQUIRED FOR THE ASSOCIATE IN ARTS IN
POLITICAL SCIENCE FOR TRANSFER (AA-T IN POLITICAL SCIENCE) 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. All courses within the
major must be completed with a "C" or better or "P" (Pass).
Note: Double counting courses in GE and the major is permissible. Guidance and Activities
requirements are not required for this degree.

PROGRAM LEARNING OUTCOMES

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

1. Use critical and creative thinking to address major political problems.
2. Analyze key concepts and important theories in political science.
3. Effectively search for, interpret, and critique political science literature.
4. Formulate and communicate thoughtful opinions about governmental systems,
   political institutions, laws, and public policies.

PROGRAM REQUIREMENTS

To earn an Associate in Arts for Transfer Degree in this major, the student must complete
the requirements detailed in the Transfer Curriculum Pathway which includes completion
of the requirements below:

REQUIRED CORE: (3 UNITS)

POLS 101 [NP] American Politics ................................................................. 3

LIST A: SELECT THREE (9 UNITS)

POLS 130 [NP] Political Theory ................................................................. 3
POLS 140 [NP] Comparative Politics ......................................................... 3
POLS 110 [NP] International Relations ..................................................... 3

LIST B: SELECT TWO (6 UNITS)

Any course from List A not already used ..................................................... 3
POLS 102 [NP] The Constitution and Rights of Persons .............................. 3
POLS 120 [NP] California Politics and Problems ....................................... 3
POLS 131 [NP] American Political Thought .............................................. 3
POLS 180 [NP] Human Rights ................................................................ 3
COMM 130 [NP] Intercultural Communication ......................................... 3
ECON 101 [NP] Principles of Macroeconomics ........................................ 3
ECON 102 [NP] Principles of Microeconomics ......................................... 3
SOCI 100 [NP] Ethnicity and Culture in America ..................................... 3

TOTAL UNITS REQUIRED IN A.A.-T MAJOR ........................................ 18

TOTAL UNITS THAT MAY BE DOUBLE COUNTED: 6-9
UNITS REQUIRED FOR IGETC/CSU BREADTH: 37-39
CSU TRANSFERABLE ELECTIVES (AS NEEDED): 9-14

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

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

THE FOLLOWING IS REQUIRED FOR THE ASSOCIATE IN ARTS IN
POLITICAL SCIENCE FOR TRANSFER (AA-T IN POLITICAL SCIENCE) 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. All courses within the
major must be completed with a "C" or better or "P" (Pass).
Note: Double counting courses in GE and the major is permissible. Guidance and Activities
requirements are not required for this degree.

PROGRAM LEARNING OUTCOMES

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

1. Use critical and creative thinking to address major political problems.
2. Analyze key concepts and important theories in political science.
3. Effectively search for, interpret, and critique political science literature.
4. Formulate and communicate thoughtful opinions about governmental systems,
   political institutions, laws, and public policies.

PROGRAM REQUIREMENTS

To earn an Associate in Arts for Transfer Degree in this major, the student must complete
the requirements detailed in the Transfer Curriculum Pathway which includes completion
of the requirements below:

REQUIRED CORE: (3 UNITS)

POLS 101 [NP] American Politics ................................................................. 3

LIST A: SELECT THREE (9 UNITS)

POLS 130 [NP] Political Theory ................................................................. 3
POLS 140 [NP] Comparative Politics ......................................................... 3
POLS 110 [NP] International Relations ..................................................... 3

LIST B: SELECT TWO (6 UNITS)

Any course from List A not already used ..................................................... 3
POLS 102 [NP] The Constitution and Rights of Persons .............................. 3
POLS 120 [NP] California Politics and Problems ....................................... 3
POLS 131 [NP] American Political Thought .............................................. 3
POLS 180 [NP] Human Rights ................................................................ 3
COMM 130 [NP] Intercultural Communication ......................................... 3
ECON 101 [NP] Principles of Macroeconomics ........................................ 3
ECON 102 [NP] Principles of Microeconomics ......................................... 3
SOCI 100 [NP] Ethnicity and Culture in America ..................................... 3

TOTAL UNITS REQUIRED IN A.A.-T MAJOR ........................................ 18

TOTAL UNITS THAT MAY BE DOUBLE COUNTED: 6-9
UNITS REQUIRED FOR IGETC/CSU BREADTH: 37-39
CSU TRANSFERABLE ELECTIVES (AS NEEDED): 9-14

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

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

The following is required for the Associate in Arts in Psychology for Transfer degree (AA-T in Psychology):

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. 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.

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.

PROGRAM REQUIREMENTS

To receive an Associate of Arts for transfer degree in Psychology, the student must complete the requirements detailed in the Transfer Model Curriculum Pathway. All courses must be completed with a C or better or “P” (Pass).

REQUIRED: (10 UNITS)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 134 [2]</td>
<td>Elementary Statistics</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 101 [1]</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 102 [2]</td>
<td>Research Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST A: SELECT ONE (3-4 UNITS)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 101 [NP]</td>
<td>Biological Principles</td>
<td>4</td>
</tr>
<tr>
<td>BIO 111 [NP]</td>
<td>General Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 116 [NP]</td>
<td>Biology: A Human Perspective</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 103 [2]</td>
<td>Introduction to Neuroscience</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST B: SELECT ONE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 104 [2]</td>
<td>Introduction to Social Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS IN THE A.A.-T MAJOR ........................................ 19-21

TOTAL UNITS THAT MAY BE DOUBLE-COUNTED .................................. 15-18

GENERAL EDUCATION (CSU GE OR IGETC) UNITS .................................. 37-39

ELECTIVE (CSU TRANSFERABLE) UNITS ........................................ 17-20

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.

Psychosocial Rehabilitation PROGRAM

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 MUC.

SKILLS RECOGNITION: PSYCHOSOCIAL REHABILITATION

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 MUC.
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.

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>
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</thead>
<tbody>
<tr>
<td>HUMSR 142</td>
<td>Introduction to Psychosocial Rehabilitation</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 143</td>
<td>Psychosocial Rehabilitation Practice</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 144</td>
<td>Community Agency Practicum Discussion</td>
<td>1</td>
</tr>
<tr>
<td>HUMSR 145AB</td>
<td>Community Agency Practicum</td>
<td>1-4</td>
</tr>
<tr>
<td>HUMSR 146</td>
<td>Psychosocial Rehabilitation with Children/Families</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR SKILLS RECOGNITION AWARD ....................................... 9

Real Estate

PROGRAM
(209) 575-6129

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.

CERTIFICATE OF ACHIEVEMENT: REAL ESTATE BROKER

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.
- 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 Certificate includes coursework which fulfills the education requirements for the California State Real Estate Brokers 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 - COMPLETE 26 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLES 380 [1] Real Estate Principles</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>RLES 381 [1] Real Estate Practices</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>RLES 382 [2] Legal Aspects of Real Estate 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>RLES 384 [1] Real Estate Finance</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUSAD 201 [1] Financial Accounting</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD .......................... 26

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLES 380 [1] Real Estate Principles</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>RLES 381 [1] Real Estate Practices</td>
<td>3</td>
<td></td>
</tr>
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</table>

ELECTIVE COURSE - COMPLETE ONE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLES 382 [1] Legal Aspects of Real Estate 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>RLES 384 [1] Real Estate Finance</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>RLES 385 [1] Real Estate Appraisal, Residential</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Recording Arts

PROGRAM

(209) 575-6081

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 111 [1] Recording Arts 1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MUSC 112 [2] Recording Arts 2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MUSC 126 [NP] Music Production for Multimedia</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MUSC 121 [3] Introduction to the Synthesizer and MIDI</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MUSG 111 [NP] Introduction to American Popular Music</td>
<td>3</td>
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</tbody>
</table>

ELECTIVE COURSES - COMPLETE 6 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MUST 101 [NP] Music Fundamentals</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MUSA 121 [NP] Keyboard Skills 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MUSG 101 [NP] Music Appreciation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MUSG 112 [NP] The History of the Beatles</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR SKILLS RECOGNITION AWARD ...................... 17
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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFADM 301</td>
<td>Beginning Keyboarding</td>
<td>1.5</td>
</tr>
<tr>
<td>OFADM 302</td>
<td>Beginning Document Processing</td>
<td>1.5</td>
</tr>
<tr>
<td>OFADM 304</td>
<td>Professional English for Business</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 305</td>
<td>Record Management</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 313</td>
<td>Office Skills</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 261</td>
<td>Introduction to Databases</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 375</td>
<td>Ten-Key on the Computer</td>
<td>1</td>
</tr>
<tr>
<td>BUSAD 300</td>
<td>Machine Calculation</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD: 16

For information on the Respiratory Bachelor’s degree pilot program visit: http://www.mjc.edu/rcbachelors

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 89 or 90 or higher level MATH course, or an equivalent course from another institution with a grade of C or better

* Please Note: Catalog rights prior to Summer 2009, will be honored for math competency through the 2011-2012 academic year. Beginning with the 2012 Respiratory Care Program application period, all applicants will need to meet the required math competency listed above.

PROGRAM PREREQUISITES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP 150</td>
<td>Integrative Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>ANAT 125</td>
<td>Human Anatomy</td>
<td>4 and</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>Introductory Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>PSYCH 101</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>MATH 89</td>
<td>Intermediate Algebra Essentials</td>
<td>4 or</td>
</tr>
<tr>
<td>MATH 90</td>
<td>Intermediate Algebra</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>Composition and Reading</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 143</td>
<td>Introductory College Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>MICRO 101</td>
<td>Microbiology</td>
<td>4</td>
</tr>
</tbody>
</table>

(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 used. 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 220 and AP 150 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 APP LICITANTS 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 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.

BLS CERTIFICATION

Basic Life Support (BLS) certification is not required in advance. It is offered as part of RSCR 220: Introduction to Respiratory Care Principles.

SCHOLASTIC REQUIREMENTS

• Continuation in the Respiratory Care Program 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 a Certificate of Completion.

POLICY FOR IMPOSING PENALTIES FOR DENIAL OF LICENSURE

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. Further information on disciplinary guidelines may be obtained from:

Respiratory Care Board of California
3750 Rosin Court, Suite 100
Sacramento, CA 95834
(916) 999-2190
(866) 375-0836

PROGRAM ADVISORY

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. Evaluate habits, interests, and attitudes which promote lifelong learning.
2. Demonstrate knowledge and clinical skill in Respiratory Care.
3. Competently perform all duties and functions which may be delegated to registered respiratory care practitioners in an ethical manner.
4. Successfully pass the National Board for Respiratory Care (NBRC) Therapist Multiple Choice Exam (TMC) and Clinical Simulation (CSE) Exam as a Registered Respiratory Care Practitioner (RRT) and be eligible for licensure in the State of California.
REQUIRED COURSES (RESPIRATORY CARE)

[FIRST SEMESTER]
RSCR 220 Introduction to Respiratory Care .............................................. 5
RSCR 230 Clinical 1 .................................................................................... 1

[SECOND SEMESTER]
RSCR 222 Basic Cardiopulmonary Anatomy & Physiology .................... 3
RSCR 224 Respiratory Care Theory 2 ......................................................... 5
RSCR 232 Clinical 2 .................................................................................... 3.5

[THIRD SEMESTER]
RSCR 240 Advanced Cardiopulmonary Physiology .................................. 4.5
RSCR 242 Critical Care Procedures .............................................................. 4.5
RSCR 290 Clinical 3 .................................................................................... 3.5

[SUMMER - FIRST SESSION]
RSCR 244 Neonatal-Pediatric Respiratory Care ...................................... 2
RSCR 251 Neonatal and Pediatric Clinical Practice I ................................. 0.5

[SUMMER – SECOND SESSION]
RSCR 253 Neonatal and Pediatric Clinical Practice II ............................... 0.5

[FOURTH SEMESTER]
RSCR 246 Current Issues in Respiratory Care ......................................... 3
RSCR 252 Physician Rounds for Respiratory Care .................................... 0.5
RSCR 255 Clinical 4 .................................................................................... 4.5
RSCR 257 Clinical Preceptorship ................................................................. 2.5

TOTAL UNITS IN A.S. MAJOR ................................................................. 43.5

To earn an Associate in Science Degree in Respiratory Care, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 109) or the University Preparation Pathway (p. 103) in addition to the Respiratory Care coursework. Consult with an advisor for selection of courses.

TOTAL UNITS REQUIRED IN A.S. DEGREE ........................................ 66.5-70.5

*The Health Education requirement has been waived for all Allied Health certificates and degrees.

* General education requirements for students planning to enroll in the Baccalaureate Degree Program should follow the CSU-GE or IGETC Transfer Pattern.

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Retail Management (WAFC) Program
(209) 575-6129

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 377</td>
<td>Human Relations in Business</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 201</td>
<td>General Computer Literacy</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 240</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 245</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 274</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 201</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 210</td>
<td>Business Communication</td>
<td>3 OR</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>Composition and Reading</td>
<td>3 AND</td>
</tr>
<tr>
<td>COMM 100</td>
<td>Fundamentals of Public Speaking</td>
<td>3 OR</td>
</tr>
<tr>
<td>COMM 102</td>
<td>Introduction to Human Communication</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 246</td>
<td>Retail Management</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD ...................................... 25-28
A.A.-T DEGREE: ELEMENTARY TEACHER EDUCATION

The Associate in Arts in Elementary Teacher Education for Transfer degree includes lower division coursework that is required for transfer and provides a broad overview of the fields in natural science, social sciences, humanities, composition, mathematics and critical thinking in order to prepare the future teacher for standards-based curriculum required in public schools.

The Associate in Arts in Elementary Teacher Education for Transfer (AA-T in Elementary Teacher Education) degree is intended for students who plan to complete a bachelor’s degree in elementary teacher education 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.

THE FOLLOWING IS REQUIRED FOR THE ASSOCIATE IN ARTS IN ELEMENTARY TEACHER EDUCATION FOR TRANSFER (AA-T IN ELEMENTARY TEACHER EDUCATION) 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 a minimum grade point average of 2.0. All courses within the major must be completed with a C or better or “P” (Pass).

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

PROGRAM LEARNING OUTCOMES

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

1. Demonstrate competence in the fields of study central to the California Board of Education content standards.
2. Define and explain the fundamental concepts of educational pedagogy including motivational theories, learning styles, and curriculum development.

PROGRAM REQUIREMENTS

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 or “P” (Pass).

REQUIRED CORE: 42 UNITS

- SOCS 109 [NP] Introduction to Education-Practicum in Tutoring ................................................. 3
- CLDV 103 [NP] Child Growth and Development ........................................................................... 3
- BIO 111 [NP] General Biology ........................................................................................................ 4
- EASCI 161 [NP] Earth Science ......................................................................................................... 4
- MATH 105 [NP] Structure of Mathematics 1 .................................................................................... 3
- COMM 100 [NP] Fundamentals of Public Speaking ......................................................................... 3
- ENGL 101 [NP] Composition and Reading ....................................................................................... 3
- ENGL 102 [NP] Advanced Composition & Introduction to Literature ............................................ 3
- GEOG 110 [NP] World Regional Geography .................................................................................... 3
- HIST 106 [NP] World Civilization to the 16th Century .................................................................... 3
- HIST 101 [NP] History of the United States to 1877 ..................................................................... 3
- POLS 101 [NP] American Politics ................................................................................................. 3

LIST A: (SELECT ONE): 3 UNITS

- ENGL 103 [NP] Advanced Composition & Critical Thinking ......................................................... 3
- PHIL 105 [NP] Critical Reasoning and Analytic Writing ................................................................. 3
- PHIL 107 [NP] Philosophy of Science ............................................................................................. 3
- COMM 104 [NP] Argumentation ..................................................................................................... 3

LIST B: (SELECT ONE): 3 UNITS

- ART 160 [NP] Appreciation of Art ................................................................................................. 3
- DANCE 102 [NP] Intro to World Dance .......................................................................................... 3
- THETR 194 [NP] Introduction to World Dance .............................................................................. 3
- MUSC 101 [NP] Music Appreciation ............................................................................................ 3
- THETR 100 [NP] Introduction to Theatre Arts ................................................................................. 3

LIST C: 0-12 ADDITIONAL UNITS

- ART 120 [NP] Basic Drawing 1 ..................................................................................................... 3
- CSCI 201 [NP] General Computer Literacy .................................................................................... 3
- COMM 102 [NP] Introduction to Human Communication .................................................................. 3
- COMM 106 [NP] Group & Organizational Communication ............................................................ 3
- 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
- MATH 106 [NP] Structure of Mathematics 2 .................................................................................. 3
- SOCS 110 [NP] Introduction to Elementary Education ................................................................. 3

TOTAL UNITS FOR THE A.A. T MAJOR .................................................................................. 48

TOTAL UNITS THAT MAY BE DOUBLE-COUNTED ........................................................................ 34-39

GENERAL EDUCATION (CSU-GE OR IGETC) UNITS .................................................................... 37-39

ELECTIVE (CSU TRANSFERABLE UNITS) ..................................................................................... 9-12

TOTAL UNITS (MAXIMUM) FOR A.A.-T DEGREE .................................................................... 60
Sociology
PROGRAM
(209) 575-6129

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 will 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 Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements (CSU-GE).

(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.

(3) All courses required for the major must be completed with a C or better or “P” (Pass).

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 phenomena.

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 10 UNITS

SOCI 101 [ 1 ] Introduction to Sociology ................................................................. 3
SOCI 102 [ NP ] Social Problems in the United States ........................................... 3
MATH 134 [ NP ] Elementary Statistics ................................................................. 3

LIST A: SELECT TWO (6 UNITS)

SOCI 125 [ NP ] Sociology of the Family ............................................................... 3

SOCI 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
SOCI 154 [ NP ] African-American Cultures and Societies .................................. 3
SOCI 156 [ NP ] Mexican Culture in the United States ....................................... 3
ANTH 102 [ NP ] Cultural Anthropology .............................................................. 3
SOCSC 105 [ NP ] Women’s Studies .................................................................... 3

TOTAL UNITS IN THE A.A.-T MAJOR ............................................................... 19

TOTAL UNITS THAT MAY BE DOUBLE-COUNTED ........................................... 12
GENERAL EDUCATION (CSU-GE) OR IGETC PATTERN UNITS ................. 37-39
ELECTIVE (CSU TRANSFERABLE UNITS) ...................................................... 14-16

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.

Spanish
PROGRAM
(209) 575-6159

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 intermediate proficiency level.

2. Communicate in writing in Spanish at an intermediate proficiency level with minimal errors in grammar, spelling, and mechanics.

3. Explain main ideas and compose simple narratives about various cultural materials produced in Spanish.
To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 109) or the University Preparation Pathway (p. 103) which include completion of the requirements below.

**REQUIRED PREPARATORY COURSES – COMPLETE 10 UNITS**

- SPAN 102 [1] Spanish 2 ...........................................5
- SPAN 103 [1] Spanish 3 ...........................................4
- SPAN 104 [1] Spanish 4 ...........................................4
- 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
- SOCO 156 [NP] Mexican Culture in the United States ....3

**TOTAL UNITS IN A.A. MAJOR ............................................. 22**

**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**

- SUPR 106 [NP] Group & Organizational Communication ........3
- SUPR 351 [NP] Elements of Supervision ..........................3
- BUSAD 274 [NP] Human Resources Management ..............3
- SUPR 364 [NP] Total Quality Management ......................3

**ELECTIVE COURSES - COMPLETE 12-13 UNITS**

- BUSAD 310 [1] Bookkeeping 1 ................................. 3 OR
- BUSAD 245 [1] Principles of Marketing .........................3
- BUSAD 246 [1] Introduction to Business .......................3

**TOTAL UNITS IN A.S. MAJOR ............................................. 24-25**
The Theatre program provides students the opportunity to act in major productions. The program is designed to teach students the techniques of acting, costuming, directing, and costume. It also prepares students for 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. Upon completion of the Associate in Arts in Theatre Arts for Transfer degree, 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.

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD**

21-22

**Theatre PROGRAM**
(209) 575-6081

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.

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

18

**UNITS REQUIRED FOR IGETC/CSU BREATH**

37-39

**CSU TRANSFERABLE ELECTIVES (AS NEEDED)**

8-9

**DOUBLE-COUNTED UNITS**

3-6

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

60

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

**REQUIRED CORE: (9 UNITS)**

THETR 100 [NP] Introduction to Theatre Arts .................................................. 3
THETR 160 [NP] Fundamentals of Acting .......................................................... 3
THETR 190 [NP] Theatre Production Workshop .............................................. 1 OR
THETR 133 [NP] Rehearsal and Performance 1 ................................................... 2
THETR 134 [NP] Rehearsal and Performance 2 ................................................... 2
THETR 135 [NP] Rehearsal and Performance 3 ................................................... 2
THETR 136 [NP] Rehearsal and Performance 4 ................................................... 2

* Rehearsal and Performance (Maximum 3 units) or Theatre Production Workshop (Maximum 3 units)

**SELECT FROM REQUIRED CORE COURSES NOT ALREADY USED (3 UNITS MAXIMUM)**

THETR 101 [NP] Introduction to Stagecraft ...................................................... 3
THETR 114 [NP] Script Analysis ................................................................. 3
THETR 161 [NP] Intermediate Acting ............................................................ 3
THETR 174 [NP] Stage Makeup .................................................................... 3
THETR 175 [NP] Stage Costuming ................................................................. 3
THETR 182 [NP] Practical Stage Lighting ....................................................... 3

**PROGRAM LEARNING OUTCOMES**

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

1. Discuss theatre from an historical perspective.
2. Demonstrate time management, commitment, follow-through, and responsibility as each attribute is applied to achieving a common group goal.
3. Creatively analyze, critique, and interpret works of theatrical art.
4. Describe the racial, ethnic and cultural diversity of U.S. and world theatre.
5. Express creativity in the artistic process.

**PLEASE CONSIDER THE FOLLOWING COURSES TO ENSURE A SUSTAINED LEARNING EXPERIENCE**

- Stage Costuming
- Foundations of Theatre Production
- Script Analysis
- Intermediate Acting
- Stage Management
- Theatre Production Workshop

**SELECT A (SELECT THREE): 9 UNITS:**

THETR 105 [NP] Introduction to Stagecraft ...................................................... 3
THETR 114 [NP] Script Analysis ................................................................. 3
THETR 161 [NP] Intermediate Acting ............................................................ 3
THETR 174 [NP] Stage Makeup .................................................................... 3
THETR 175 [NP] Stage Costuming ................................................................. 3
THETR 182 [NP] Practical Stage Lighting ....................................................... 3

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD**

21-22
# A.A. DEGREE: 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</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THETR 100 [J] Introduction to Theatre Arts</td>
<td>3</td>
</tr>
<tr>
<td>THETR 160 [J] Fundamentals of Acting</td>
<td>3</td>
</tr>
<tr>
<td>THETR 190 [J] Theatre Production Workshop</td>
<td>1</td>
</tr>
</tbody>
</table>

### ELECTIVE COURSES: GENERAL - COMPLETE 10 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>DANCE 102 [NP] Introduction to World Dance</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 155 [NP] Fundamentals of Choreography 1</td>
<td>2</td>
</tr>
<tr>
<td>THETR 105 [NP] Introduction to Stagecraft</td>
<td>2</td>
</tr>
<tr>
<td>THETR 122 [NP] Introduction to Readers' Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THETR 123 [NP] Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>THETR 124 [NP] Advanced Readers' Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THETR 133 [NP] Rehearsal and Performance 1</td>
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</tr>
<tr>
<td>THETR 134 [NP] Rehearsal and Performance 2</td>
<td>2</td>
</tr>
<tr>
<td>THETR 159 [NP] Rehearsal and Performance in Musical Theatre</td>
<td>2</td>
</tr>
<tr>
<td>THETR 161 [NP] Intermediate Acting</td>
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<tr>
<td>THETR 164 [NP] Improvisational Acting</td>
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<td>THETR 174 [NP] Stage Makeup</td>
<td>3</td>
</tr>
<tr>
<td>THETR 175 [NP] Stage Costuming</td>
<td>3</td>
</tr>
<tr>
<td>THETR 182 [NP] Practical Stage Lighting</td>
<td>3</td>
</tr>
<tr>
<td>THETR 195 [NP] Stage Management</td>
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</table>

### ELECTIVE COURSES: MOVEMENT - COMPLETE 2 UNITS

<table>
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<th>Course</th>
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<tr>
<td>DANCE 111 [NP] Modern Dance 1</td>
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<td>DANCE 112 [NP] Modern Dance 2</td>
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<tr>
<td>DANCE 113 [NP] Modern Dance 3</td>
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<tr>
<td>DANCE 121 [NP] Ballet 1</td>
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<td>DANCE 122 [NP] Ballet 2</td>
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<tr>
<td>DANCE 123 [NP] Ballet 3</td>
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</tr>
<tr>
<td>DANCE 124 [NP] Ballet 4</td>
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</tr>
<tr>
<td>DANCE 131 [NP] Jazz</td>
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<tr>
<td>DANCE 132 [NP] Jazz 2</td>
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<tr>
<td>DANCE 133 [NP] Jazz 3 Intermediate/Advanced</td>
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<tr>
<td>DANCE 141 [NP] Hip Hop</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 151 [NP] Movement for the Performing Artist</td>
<td>3</td>
</tr>
</tbody>
</table>

### TOTAL UNITS IN A.A. MAJOR .......................................................... 19

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## SKILLS RECOGNITION: DESIGN & TECHNICAL THEATRE

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>
</tr>
</thead>
<tbody>
<tr>
<td>THETR 100 Introduction to Theatre Arts</td>
<td>3</td>
</tr>
<tr>
<td>THETR 174 Stage Makeup</td>
<td>3</td>
</tr>
<tr>
<td>THETR 175 Stage Costuming</td>
<td>3</td>
</tr>
<tr>
<td>THETR 182 Practical Stage Lighting</td>
<td>3</td>
</tr>
<tr>
<td>THETR 190 Theatre Production Workshop</td>
<td>1</td>
</tr>
<tr>
<td>THETR 196 Stage Management</td>
<td>3</td>
</tr>
</tbody>
</table>

### TOTAL UNITS FOR SKILLS RECOGNITION AWARD.................................... 16

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## SKILLS RECOGNITION: THEATRE PERFORMANCE

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. 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 6 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THER 161 [2] Intermediate Acting</td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES - COMPLETE 9 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 151 (NP) Movement for the Performing Artist</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 155 (NP) Fundamentals of Choreography</td>
<td>2</td>
</tr>
<tr>
<td>THER 122 [1] Introduction to Readers' Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THER 123 (NP) Storytelling</td>
<td>3</td>
</tr>
</tbody>
</table>

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

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**Welding**

**PROGRAM**

(209) 575-6332

Student will be able to gas and arc weld in all positions as well as use gas and arc cutting equipment. Upon completion of the A.S. Degree in welding, the student will be employable in the trades or will be able to transfer to a state university for study in an industrial-related degree program.

**REQUIRED COMPETENCIES FOR ALL CERTIFICATES AND SKILLS RECOGNITIONS:**

All students who plan to earn a certificate must also meet the following competencies.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 20 Pre-Algebra</td>
<td>5 OR</td>
</tr>
<tr>
<td>Eligibility for MATH 70 by MIC assessment process</td>
<td></td>
</tr>
</tbody>
</table>

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**A.S. DEGREE: 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. 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.

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**CERTIFICATE OF ACHIEVEMENT:**

**Manufacturing Technology**

(Interdisciplinary)

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 REQUIREMENTS**

To earn a certificate in this major, the student must complete the requirements below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGM 262 (NP) Hydraulics/Pneumatics</td>
<td>3</td>
</tr>
<tr>
<td>ETEC 208 (NP) The World of Electricity and Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ETEC 229 (NP) Commercial &amp; Industrial Wiring</td>
<td>3</td>
</tr>
<tr>
<td>ETEC 265 (NP) Troubleshooting Techniques</td>
<td>1</td>
</tr>
<tr>
<td>MACH 301 (NP) Machine Shop 1</td>
<td>3</td>
</tr>
<tr>
<td>MACH 302 (NP) Machine Shop 2</td>
<td>3</td>
</tr>
<tr>
<td>WELD 200 (NP) Arc &amp; Gas Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 204 (NP) Gas Metal Arc Welding(G.M.A.W) &amp; Flux Core Arc Welding (F.C.A.W)</td>
<td>3</td>
</tr>
<tr>
<td>WELD 206 (NP) Gas Tungsten Arc Welding (G.T.A.W)</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD** ........................................ 25

*Pending ACCC Approval*