

PROGRAMS DIVIDER PAGE

? How to read program information

PLACEHOLDER TEXT

Agriculture: Sales, Service PROGRAM

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.

Certificate of Achievement: Agriculture: Sales, Service Technician

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

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

AG	115	[1]	Introduction to Agricultural Education and Careers.....	1
AG	349A-D	[NP]	Work Experience (for a total of 4 units)**.....	4 OR
AG	249	[NP]	Agriculture Internship**.....	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	[2]	Agriculture Accounting & Analysis.....	3
AGEC	210	[1,2]	Elements of Agricultural Economics.....	3
AGEC	215	[3,4]	Agricultural Marketing.....	3
AGEC	280	[NP]	Agricultural Sales and Service.....	3
SPCOM	100	[NP]	Fund. of Public Speaking.....	3 OR
SPCOM	102	[NP]	Introduction to Human Communication.....	3
AG	285	[1,2]	Agricultural Communications.....	3

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

**Required

A.S. Degree: Agriculture: Sales, Service

*To earn an Associate in Science Degree, the student must complete the MJC Associate Degree Requirements in addition to the following coursework.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

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

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

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.....	4
PLSC	200	[NP]	Introduction to Plant Science.....	3

III. MAJOR REQUIRED COURSES - COMPLETE 12 UNITS

AGEC	200	[2-4]	Agriculture Accounting & Analysis.....	3
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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 4 UNITS

AG	280	[NP]	Agricultural Computations.....	3
AG	285	[NP]	Agricultural Communications.....	3
AGEC	220	[2,-4]	Agricultural Business Management.....	3
AGEC	225	[1]	Agriculture Computer Applications.....	3
SPCOM	100	[NP]	Fundamentals of Public Speaking.....	3 OR
SPCOM	102	[NP]	Introduction to Human Communication.....	3

ANY COURSE NOT TAKEN IN CORE MAJOR OR OPTIONS.

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

**Required

Animal Science PROGRAM

A.S. Degree: Animal Science

*To earn an Associate in Science Degree, the student must complete the MJC Associate Degree Requirements in addition to the following coursework.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

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

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

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

III. AGRICULTURE MAJOR COURSES - COMPLETE 12 UNITS

ANSC	200	[1]	Introduction to Animal Science.....	3
ANSC	201	[NP]	Beef Cattle Science.....	3
ANSC	202	[NP]	Swine Science.....	3
ANSC	203	[NP]	Sheep Science.....	3
ANSC	207	[NP]	Equine Science.....	3
ANSC	210	[1]	Livestock Selection & Evaluation.....	3
ANSC	211	[3,4]	Introduction to Meat Science.....	3
ANSC	214	[NP]	Livestock, Feeding & Nutrition.....	3
ANSC	215	[2-4]	Animal Health & Sanitation.....	3

IV. ELECTIVE COURSES - COMPLETE 4 UNITS

Any 200 level Animal Science class not listed above.....	[NP]
Any Agriculture class not used in Area II. for breadth core.....	[NP]
Any Animal Science class not used in Area III. for major core.....	[NP]
No more than two units of 300 level Agriculture classes.....	[NP]

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

**Required

- Title of the Educational Program
- Type of Award (degree, certificate, or skills recognition)
- Name of the award as it will appear on award and transcript
- Courses required for the award
- The preferred sequence of courses within a 4 semester program. NP means "no preference".
- Elective courses (students can be given options between or among courses in the electives)
- Total number of units required for that major. Note: Does not include total units for associate degree.

Agriculture & Environmental Sciences

DEGREES, CERTIFICATES, & SKILLS RECOGNITIONS

Mark Anglin, Dean

East Campus
Agriculture Building, Room 100
(209) 575-6200

INSTRUCTION IN:

Agriculture (AG)
Agricultural Business
Agriculture, General (AGGE)
Animal Science (ANSC)
Environmental Horticultural Science (EHS)
Environmental Science (ENSCI)
Natural Resources (NR)
Plant Science (PLSC)

AWARDS IN:

Advanced Heavy Equipment Technician, C
Agricultural Business, AS
Agriculture Laboratory Technician, AS, C
Agricultural Science(s), AS, UP
Agriculture - Sales, Service Technician, AS, C
Animal Science, AS
Artificial Insemination Technician, C
Basic Heavy Equipment Technician, C
Commercial Floristry Technician, C
Crop Science, AS
Dairy Science, AS
Environmental Horticultural Science, AS
Forestry, AS, C
Fruit Science, AS
Heavy Machinery Management, C
Landscape Design, C
Landscape/Park Maintenance, C
Mechanized Agriculture, AS
Mechanized Agriculture Technician, C
Nursery Production, C
Poultry Science, AS
Recreational Land Management, AS, C
Soil Science, AS
Veterinary Technician, C

SUPPORT STAFF

Gloria Wilson, Administrative Secretary
Don Borges, Director, Tech Prep
Rhonda Wolf, Administrative Technician
Andy Alderson, Agricultural Operations Manager

AGRICULTURE & ENVIRONMENTAL SCIENCES

Agricultural studies play an essential part in filling the world-wide demand for food and fiber. The program of courses offered in agriculture is designed to prepare students for a variety of professions or occupations in agriculture or transfer to higher institutions. Students preparing for immediate entry into agricultural occupations will find practical sequences of courses designed to assist them in achieving their occupational goals. University transfers may take agricultural courses appropriate to the majors and programs of the institutions to which they are transferring.

Supervised practice (work experience) is an essential part of the instruction offered and is a requirement for completion of all agricultural programs. Majors completing the appropriate requirements may earn the Associate in Science degree. Transfer and community college students completing the requirements of technical programs may earn certificates of achievement. Students should consult division advisors for enrollment and program details before registration. In order to complete a program, students must complete courses approved by the division. Divisional advisors will assist students in the selection of proper courses and sequences.

Advanced Heavy Equipment Technician PROGRAM

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.

Certificate of Achievement: Advanced Heavy Equipment Technician

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Basic Heavy Equipment Technician will be able 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
AUTEK 317	[NP]	Automotive Air Conditioning	3½

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD 18½

Agricultural Business PROGRAM

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

A.S. Degree: Agriculture Business

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Agriculture Business will be able 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.....	1
AG 349A-D	[NP]	Work Experience ** (for a total of 4 units).....	4 OR
AG 249	[NP]	Agriculture Internship**	4

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

PLSC 200	[1,2]	Introduction to Plant Science	3
ANSC 200	[1,2]	Introduction to Animal Science.....	3
NR 200	[1,2]	Soils.....	4
AGM 200	[NP]	Introduction to Mechanical Technology.....	3

III. MAJOR REQUIRED COURSES - COMPLETE 12 UNITS

AGEC 200	[2]	Agriculture Accounting and Analysis.....	3
AGEC 210	[NP]	Elements of Agricultural Economics	3
AGEC 220	[3,4]	Agricultural Business Management.....	3
AGEC 225	[NP]	Agriculture Computer Applications.....	3

IV. ELECTIVE COURSES - COMPLETE 4 UNITS

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

MINIMUM UNITS IN A.S. MAJOR 30

**Required

Agricultural Science PROGRAM

A.S. Degree: **Agricultural Science**

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Agriculture Science will be able 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.

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.....	1
AG	349A-D	[NP]	Work Experience (for a total of 4 units)**	4 OR
AG	249	[NP]	Agriculture Internship**	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
AGEC	225	[NP]	Agriculture Computer Applications.....	3 OR
AGEC	210	[NP]	Elements of Agriculture Economics	3 OR
AGEC	200	[2]	Agriculture Accounting and Analysis.....	3

III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS

AGM	210	[NP]	Agricultural Welding.....	3
EHS	280	[NP]	Beginning Floral Design	3
ANSC	201	[NP]	Beef Cattle Science	3 OR
ANSC	202	[NP]	Swine Science.....	3 OR
ANSC	203	[NP]	Sheep Science.....	3
ANSC	230	[2,3,4]	Poultry Science.....	3
EHS	210	[NP]	Introduction to Environmental Horticulture	3
PLSC	230	[NP]	Fruit Science.....	3
ANSC	220	[2,3,4]	Dairy Industry/Dairy Science.....	3

IV. AGRICULTURE MAJOR ELECTIVE COURSES - COMPLETE 7 UNITS

ANY CLASS NOT USED IN AREA II & III
 ANY 200 LEVEL AGRICULTURE CLASS APPROVED BY ADVISOR
 2 UNITS OF 300 LEVEL CLASS

MINIMUM UNITS IN A.S. MAJOR 30

**Required

A.A. Degree: University Preparation, Emphasis in **Agricultural Sciences**

ABOUT THIS EMPHASIS

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

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in University Preparation, Emphasis in Agricultural Sciences will be able to:

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

EMPHASIS REQUIREMENTS

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

REQUIRED COURSES - TAKE 4 COURSES.

AGEC	210	[NP]	Elements of Agricultural Economics.....	3
ANSC	200	[NP]	Introduction to Animal Science.....	3
NR	200	[NP]	Soils.....	4
PLSC	200	[NP]	Introduction to Plant Science	3

ELECTIVE COURSES - TAKE 5 UNITS.

AGEC	200	[NP]	Agricultural Accounting and Analysis.....	3
AGEC	225	[NP]	Agriculture Computing Applications.....	3
AGEC	280	[NP]	Agricultural Sales and Service.....	3
AGM	200	[NP]	Introduction to Mechanical Technology.....	3
AGM	215	[NP]	Machinery Management	3 OR
AGM	220	[NP]	Industrial/Agricultural Machinery	3 OR
AGM	230	[NP]	Field Surveying.....	3
ANSC	201	[NP]	Beef Cattle Science	3
ANSC	202	[NP]	Swine Science.....	3
ANSC	203	[NP]	Sheep Science.....	3
ANSC	214	[NP]	Livestock Feeding and Nutrition	3
ANSC	215	[NP]	Animal Health and Sanitation.....	3
ANSC	220	[NP]	Dairy Industry/Dairy Science.....	3
ECON	101	[NP]	Economic Principles: Macroeconomics.....	3
EHS	210	[NP]	Introduction to Environmental Horticulture	3
EHS	276	[NP]	Landscape Maintenance.....	3
MATH	111	[NP]	Applied College Algebra.....	3
MATH	134	[NP]	Elementary Statistics.....	5
MATH	138	[NP]	Calculus for Business and Social Sciences.....	3
NR	220	[NP]	Introductory Forestry.....	3
NR	222	[NP]	Native Tree and Shrub Identification	3
PLSC	205	[NP]	Field Crops	3 OR
PLSC	215	[NP]	Vegetable Crops.....	3 OR
PLSC	230	[NP]	Fruit Science.....	3 OR
PLSC	250	[NP]	Plant Nutrition and Fertilizer.....	3 OR
PLSC	260	[NP]	Plant Disease Control.....	3

UNITS REQUIRED IN AREA OF EMPHASIS 18

Agriculture: Sales, Service PROGRAM

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.

Certificate of Achievement: Agriculture: Sales, Service Technician

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Agriculture Sales, Service Technician will be able 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.

CERTIFICATE REQUIREMENTS

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

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

AG	115	[1]	Introduction to Agricultural Education and Careers.....	1
AG	349A-D	[NP]	Work Experience (for a total of 4 units)**.....	4 OR
AG	249	[NP]	Agriculture Internship**.....	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	[2]	Agriculture Accounting & Analysis.....	3
AGEC	210	[1,2]	Elements of Agricultural Economics.....	3
AGEC	215	[3,4]	Agricultural Marketing.....	3
AGEC	280	[NP]	Agricultural Sales and Service.....	3
SPCOM	100	[NP]	Fundamentals of Public Speaking.....	3 OR
SPCOM	102	[NP]	Introduction to Human Communication.....	3
AG	285	[1,2]	Agricultural Communications.....	3

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

**Required

A.S. Degree: Agriculture: Sales, Service

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Agriculture Sales and Service will be able 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.....	1
AG	349A-D	[NP]	Work Experience (for a total of 4 units)**.....	4 OR
AG	249*	[NP]	Agriculture Internship**.....	4

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

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.....	4
PLSC	200	[NP]	Introduction to Plant Science.....	3

III. MAJOR REQUIRED COURSES - COMPLETE 12 UNITS

AGEC	200	[2-4]	Agriculture Accounting & 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 4 UNITS

AG	280	[NP]	Agricultural Computations.....	3
AG	285	[NP]	Agricultural Communications.....	3
AGEC	220	[2,-4]	Agricultural Business Management.....	3
AGEC	225	[1]	Agriculture Computer Applications.....	3
SPCOM	100	[NP]	Fundamentals of Public Speaking.....	3 OR
SPCOM	102	[NP]	Introduction to Human Communication.....	3

ANY COURSE NOT TAKEN IN CORE MAJOR OR OPTIONS.

MINIMUM UNITS IN A.S. MAJOR 30

**Required

Animal Science PROGRAM

A.S. Degree: **Animal Science**

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Animal Science will be able to:

1. Demonstrate proficiency in agricultural sciences/engineering by employing the scientific method to solve agricultural problems.
2. Be able to employ safe work habits as prescribed in the "Injury, Illness Prevention Plan" (IIPP) for the workplace employed, including but not limited to handling and storage of hazardous materials.
3. Demonstrate mastery of the technical and soft skills needed for successful employment in the animal science industry and give specific examples of careers in the Animal Agriculture industry.
4. Give specific examples of careers in the Animal Agriculture Industry and briefly describe the prerequisites for these careers.
5. Utilize a variety of technologies to gain information about the Animal Agriculture industry and apply these technologies in the analysis of specific situations.
6. Describe the economic significance of a specific area studied in animal science and explain the social/cultural benefits provided by that industry.
7. Describe basic management techniques used by the Animal Science industry to produce wholesome, safe, environmentally responsible animal products.

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	1
AG 349A-D	[NP]	Work Experience (for a total of 4 units)**	4 OR
AG 249	[NP]	Agriculture Internship**	4

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

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

III. AGRICULTURE MAJOR COURSES - COMPLETE 12 UNITS

ANSC 200	[1]	Introduction to Animal Science	3
ANSC 201	[NP]	Beef Cattle Science	3
ANSC 202	[NP]	Swine Science	3
ANSC 203	[NP]	Sheep Science	3
ANSC 207	[NP]	Equine Science	3
ANSC 210	[1]	Livestock Selection & Evaluation	3
ANSC 211	[3,4]	Introduction to Meat Science	3
ANSC 214	[NP]	Livestock, Feeding & Nutrition	3
ANSC 215	[2-4]	Animal Health & Sanitation	3

IV. ELECTIVE COURSES - COMPLETE 4 UNITS

Any 200 level Animal Science class not listed above	[NP]		
Any Agriculture class not used in Area II. for breadth core	[NP]		
Any Animal Science class not used in Area III. for major core	[NP]		
No more than two units of 300 level Agriculture classes	[NP]		

MINIMUM UNITS IN A.S. MAJOR 30

**Required

Artificial Insemination PROGRAM

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.

Certificate of Achievement: **Artificial Insemination Technician**

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Artificial Insemination Technician will be able 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.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

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

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

AG 376	[NP]	Basic Science & Lab Techniques	3
AGEC 200	[2,3,4]	Agricultural Accounting & Analysis	3
AGEC 280	[NP]	Agricultural Sales & Services	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 & Selection	3

IV. ELECTIVE COURSES - COMPLETE 3 UNITS

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

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT 30

**Required

Basic Heavy Equipment Technician PROGRAM

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.

Certificate of Achievement: Basic Heavy Equipment Technician

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Basic Heavy Equipment Technician will be able 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 280	[NP]	Mobile Machinery Hydraulic Systems	3
AGM 289	[NP]	Principles of Power Mechanics/Small Engines.....	3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT 16

Commercial Floristry PROGRAM

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.

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.

EXPECTED LEARNING OUTCOMES

Upon satisfactory completion of this program, the student will be able to:

1. 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.
2. List at least five career opportunities in the horticulture industry, 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 inter-personal 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 349ABCD **	[1]	Work Experience Agriculture - Supervised Practice	4, OR
AG 249 **	[NP]	Agriculture Internship.....	4

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

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

III. AGRICULTURE MAJOR COURSES- COMPLETE 21 UNITS

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

TOTAL UNITS 35

**Required

Crop Science PROGRAM

The student acquires skills in production of the common row and field crops grown in the Central Valley. Specific skills are emphasized in seedbed preparation, planting, fertilizing, weed control, pest management, harvesting, and marketing. Training leads to farming as well as employment in allied businesses such as fertilizer or agricultural chemical companies, seed companies, processing companies, and other related industries. Contact the division office in the Agriculture Building for advising assistance.

A.S. Degree: Crop Science

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Crop Science will be able to:

1. Demonstrate proficiency in agricultural sciences/engineering by employing the scientific method to solve agricultural problems.
2. Be able to employ safe work habits as prescribed in the "Injury, Illness Prevention" (IIPP) for the workplace employed, including but not limited to handling and storage of hazardous materials.
3. Demonstrate mastery of the technical and soft skills needed for successful employment in Crop Science (Agronomy, Pomology, Viticulture, and enology, or oleoculture.)
4. Apply the principles of ecology, soil science, and plant science to crop management problems.
5. Develop integrated pest management programs for specific crops.

MAJOR REQUIREMENTS

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

I. AGRICULTURE CAREER CORE - COMPLETE 5 UNITS

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

II. AGRICULTURE SCIENCE BREADTH CORE - COMPLETE 9 UNITS

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

III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS

PLSC	200	[1]	Introduction to Plant Science	3
PLSC	205	[2]	Field Crops	3
PLSC	215	[1]	Vegetable Crops.....	3
PLSC	250	[4]	Plant Nutrition & Fertilizers.....	3

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 7 UNITS

AG	280	[1]	Agricultural Computations	3
PLSC	255	[NP]	Plant Pest Control	3
AGM	235	[2,3,4]	Irrigation and Drainage	3
PLSC	260	[2,3,4]	Plant Disease Control	3

Any course not taken in Area III above

MINIMUM UNITS IN A.S. MAJOR 30

**Required

Dairy Science PROGRAM

A.S. Degree: Dairy Science

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Dairy Science will be able to:

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

MAJOR REQUIREMENTS

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (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	1
AG	349 A-D	[NP]	Work Experience (total of 4 units)**	4 OR
AG	249	[NP]	Agriculture Internship**	4

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

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

III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS

ANSC	220	[NP]	Dairy Industry/Dairy Science.....	3
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 and Evaluation.....	3
ANSC	228	[NP]	Dairy Management	3
ANY 200 SERIES AGRICULTURE COURSE NOT TAKEN ABOVE				
1 UNIT MAXIMUM FROM ANY 300 SERIES AGRICULTURE COURSE				1

MINIMUM UNITS IN A.S. MAJOR 30

**Required

Environmental Horticultural Science PROGRAM

A.S. Degree: Environmental Horticultural Science

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Environmental Horticulture Science will be able to:

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

MAJOR REQUIREMENTS

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

I. AGRICULTURE CAREER CORE – COMPLETE 5 UNITS

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

II. AGRICULTURE SCIENCE BREADTH CORE – COMPLETE 6 UNITS

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

III. AGRICULTURE MAJOR COURSES – COMPLETE 12 UNITS

PLSC	200	[1,2]	Introduction to Plant Science.....	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

IV. AGRICULTURE MAJOR ELECTIVES – COMPLETE 7 UNITS

AGM	(ANY)		Any class listed in Mechanized Agriculture	1-4
EHS	215	[3]	Landscape Design.....	3
EHS	220	[3,4]	Turfgrass Management	3
EHS	235	[NP]	Plant Propagation/Production	3
EHS	276	[1,2]	Landscape Maintenance.....	3
EHS	278	[3,4]	Landscape Construction and Installation.....	3
EHS	280	[1]	Beginning Floral Design	3
EHS	281	[2]	Advanced Floral Design	3
NR	222	[3]	Native Tree & Shrub Identification.....	3
PLSC	250	[2,3]	Plant Nutrition & Fertilizer	3
PLSC	255	[2,3]	Plant Pest Control	3
PLSC	260	[2,3]	Plant Disease Control	3

MINIMUM UNITS IN A.S. MAJOR 30

**Required

A.A. Degree: University Preparation, Emphasis in **Environmental Science (p.197)**

Forestry PROGRAM

This program will develop entry-level job skills and knowledge in natural resources. The student will develop skills in timber cruising, log scaling, fire fighting, forest inventory, and use of aerial photos sufficient to obtain entry level employment or to transfer to a university. Contact the division office in the Agriculture Building for advising assistance.

Certificate of Achievement: Forestry Technician

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Forestry will be able to:

1. Employ the scientific method to solve problems in the laboratory and in the natural environment.
2. Practice safe work habits in an employment setting, including handling and storage of hazardous materials and operation of basic tools and equipment.
3. Demonstrate sufficient mastery of forestry and land management skills for technical employment in the natural resource management.
4. Apply the principles of ecology, soil science, silviculture, cartography, and facilities maintenance and development to sustainable resources management problems.
5. Develop environmental ethics as an operational philosophy for resource management, public education of natural resources, and wildlife management.

CERTIFICATE REQUIREMENTS

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

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

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

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

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

III. AGRICULTURE MAJOR COURSES - COMPLETE 15 UNITS

ENSCI	108	[2]	Environmental Conservation.....	3
NR	220	[1]	Introductory Forestry.....	3
NR	222	[2,3]	Native Tree & Shrub Identification.....	3
NR	224	[3]	Intro to Forestry Measurement.....	3
NR	376	[2]	Forestry Technology.....	3
NR	379	[3]	Wildland Fire Control.....	1

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 6 UNITS

Any Natural Resources, Agriculture Economics

or Plant Science courses not listed or used above.....	3
AG 280 [NP] Agricultural Computations.....	3
AGM 230 [NP] Field Surveying.....	3
AG 285 [NP] Agricultural Communications.....	3
AGM 215 [NP] Machinery Management.....	3
EHS 276 [NP] Landscape Maintenance.....	3

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

**Required

A.S. Degree: **Forestry**

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Forestry will be able to:

1. *Employ the scientific method to solve problems in the laboratory and in the natural environment.*
2. *Practice safe work habits in an employment setting, including handling and storage of hazardous materials and operation of basic tools and equipment.*
3. *Demonstrate sufficient mastery of forestry and land management skills for technical employment in the natural resource management.*
4. *Apply the principles of ecology, soil science, silviculture, cartography, and facilities maintenance and development to sustainable resources management problems.*
5. *Develop environmental ethics as an operational philosophy for resource management, public education of natural resources, and wildlife management.*

MAJOR REQUIREMENTS

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

I. FORESTRY CAREER COURSES - COMPLETE 5 UNITS

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

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

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

III. FORESTRY MAJOR COURSES - COMPLETE 12 UNITS

NR 220 [1] Introduction to Forestry.....	3
NR 222 [2,3] Native Tree & Shrub Identification.....	3
ENSCI 108 [2] Environmental Conservation.....	3
NR 376 [2] Forestry Technology.....	3

IV. FORESTRY MAJOR ELECTIVES - COMPLETE 4 UNITS

Any Natural Resources, Agriculture Economics or Plant Science course not listed or used above.3	
AG 280 [NP] Agricultural Computations.....	3
AGM 230 [NP] Field Surveying.....	2
AG 285 [NP] Agricultural Communications.....	3
AGM 215 [NP] Machinery Management.....	3

UNITS IN A.S. MAJOR 30

**Required

Fruit Science PROGRAM

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.

A.S. Degree: **Fruit Science**

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Fruit Science will be able to:

1. *Employ the scientific method to solve problems in the laboratory and in the field.*
2. *Practice safe work habits in an employment setting, including handling and storage of hazardous materials.*
3. *Demonstrate sufficient mastery of general plant science skills for technical employment in the plant science management industry (agronomy, pomology, viticulture and enology, or oleoculture.*
4. *Apply the principles of ecology, soil science, and plant science to crop management problems.*
5. *Develop integrated pest management programs for specific crops.*

MAJOR REQUIREMENTS

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (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.....	1
AG 349A-D [NP] Work Experience (total of 4 units)**.....	4 OR
AG 249 [NP] Agriculture Internship**.....	4

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

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

III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS

Complete 3 units	
PLSC 230 [1,2] Fruit Science.....	3

Complete 6 units	
PLSC 241 [3,4] Viticulture.....	3
PLSC 255 [3,4] Plant Pest Control.....	3
PLSC 200 [1,2] Introduction to Plant Science.....	3

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 7 UNITS

PLSC 235 [3,4] Plant Propagation/Production Planting & Varieties.....	3
PLSC 250 [3,4] Plant Nutrition and Fertilizers.....	3
AGM 235 [3,4] Irrigation and Drainage.....	3
PLSC 260 [NP] Plant Disease Control.....	3
Any class not already taken in Area III	

MINIMUM UNITS IN A.S. MAJOR 30

**Required

Heavy Machinery Management PROGRAM

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.

Certificate of Achievement: Heavy Machinery Management

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Heavy Machinery Management will be able 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 15

Landscape and Park Maintenance PROGRAM

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

Certificate of Achievement: Landscape and Park Maintenance

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Landscape/Park Maintenance will be able to:

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

CERTIFICATE REQUIREMENTS

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

I. AGRICULTURE CAREER REQUIRED UNITS - COMPLETE 5 UNITS

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

II. AGRICULTURE BREADTH CORE UNITS - COMPLETE 9 UNITS

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

III. AGRICULTURE MAJOR COURSES - COMPLETE 20 UNITS

EHS 201	[1,2]	Plant Identification and Usage 1	3
EHS 202	[1,2]	Plant Identification and Usage 2	3
EHS 210	[1]	Introduction to Environmental Horticulture	3
EHS 220	[2,3,4]	Turfgrass Management	2
EHS 276	[1]	Landscape Maintenance.....	3
EHS 278	[2,3,4]	Landscape Construction and Installation.....	3
EHS 215	[3,4]	Landscape Design.....	3

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 7 UNITS

AG 280	[NP]	Agricultural Computations.....	3
AG 285	[NP]	Agricultural Communications	3
NR 222	[3]	Native Tree & Shrub Identification.....	3
AGEC 280	[2,3,4]	Agricultural Sales and Service.....	3
AGM 230	[3,4]	Field Surveying.....	2
NR 230	[2,3]	Outdoor/Forest Recreation	3
AGM 215	[2,3]	Machinery Management	3
PLSC 250	[3,4]	Plant Nutrition and Fertilizer.....	3
PLSC 255	[3,4]	Plant Pest Control	3

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

**Required

Landscape Design PROGRAM

Certificate of Achievement: Landscape Design

The Landscape Design technician 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 program, the student will be able to:

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

PROGRAM REQUIREMENTS

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

REQUIRED COURSES - COMPLETE 21 UNITS

NR	200	[2]	Soils.....	4
EHS	201	[1,2]	Plant Identification and Usage 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	349A-D	[NP]	Agriculture Work Experience.....	4

ELECTIVE COURSES - COMPLETE 9 UNITS

EHS	276	[NP]	Landscape Maintenance.....	3
EHS	278	[NP]	Landscape Construction and Installation.....	3
NR	222	[NP]	Native Tree & Shrub Identification.....	3
BOT	110	[NP]	Plant Biology.....	3
CMPS	201	[NP]	General Computer Literacy.....	3 OR
AGEC	225	[NP]	Agriculture Computer Applications.....	3

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

Mechanized Agriculture PROGRAM

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.

Certificate of Achievement: Mechanized Agriculture Technician

Students who earn a Certificate of Achievement in Mechanized Agriculture Technician will be able to:

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

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

I. AGRICULTURE CAREER CORE - COMPLETE 5 UNITS

AG	115	[1]	Introduction to Agricultural Education and Careers.....	1
AG	249	[NP]	Agriculture Internship.....	4
AG	349A-D	[NP]	Work Experience (for a total of 4 units).....	4

II. REQUIRED COURSES FOR CERTIFICATE - COMPLETE 15 UNITS

AGM	200	[1]	Introduction to Mechanical Technology.....	3
AGM	210	[1,2]	Agricultural Welding.....	3
AGM	215	[1]	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]	Communications in Agriculture.....	3
AGEC	280	[NP]	Agricultural Sales and Service.....	3
AGM	211	[NP]	Advanced Agricultural Welding.....	3
AGM	214	[NP]	Equipment Service and Safety.....	2
AGM	225	[NP]	Principles of Electrical Wiring.....	3
AGM	230	[NP]	Field Surveying.....	2
AGM	241	[NP]	Diesel Engine Principles.....	2
AGM	251	[2]	Farm Construction and Materials.....	4
AGM	289	[NP]	Principles of Power Mechanics/Small Engines.....	1

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

A.S. Degree: **Mechanized Agriculture**

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Mechanized Agriculture will be able to:

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

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 CORE - COMPLETE 5 UNITS

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

II. AGRICULTURE SCIENCE BREADTH CORE - COMPLETE 9 UNITS

PLSC 200	[NP]	Introduction to Plant Science	3
ANSC 200	[NP]	Introduction to Animal Science	3
NR 200	[NP]	Soils	4
AGEC 225	[NP]	Agriculture Computer Applications	3 OR
AGEC 210	[NP]	Elements of Agricultural Economics	3 OR
AGEC 200	[NP]	Agricultural Accounting and Analysis	3

III. AGRICULTURE MAJOR COURSES - COMPLETE 12 UNITS IN ONE OPTION

FABRICATION OPTION

AGM 200	[1]	Introduction to Mechanical Technology	3
AGM 210	[1,2]	Agricultural Welding	3
AGM 262	[NP]	Hydraulics/Pneumatics	3 OR
AGM 280	[NP]	Mobile Machinery Hydraulic System	3
AGM 251	[2]	Farm Construction & Materials	4

POWER OPTION

AGM 200	[1]	Introduction to Mechanical Technology	3
AGM 210	[1,2]	Agricultural Welding	3
AGM 215	[1]	Machinery Management	3
AGM 240	[NP]	Truck and Tractor Power Trains	3
AGM 262	[NP]	Hydraulics/Pneumatics	3 OR
AGM 280	[NP]	Mobile Machinery Hydraulic Systems	3

IV. AGRICULTURE ELECTIVE COURSES- COMPLETE 4-5 UNITS

AGM 211	[NP]	Advanced Agricultural Welding	3
AGM 214	[NP]	Equipment Service and Safety	2
AGM 225	[NP]	Principles of Electrical Wiring	3
AGM 230	[NP]	Field Surveying	2
AGM 241	[NP]	Diesel Engine Principles	3
AGM 289	[NP]	Principles of Power Mechanics/Small Engines	3

ANY 200 LEVEL AGRICULTURE COURSE INCLUDING THOSE THAT ARE LISTED, BUT NOT USED, IN AREA II ABOVE.

MINIMUM UNITS IN A.S. MAJOR 30

**Required

Nursery Production PROGRAM

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.

Certificate of Achievement: Nursery Production

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Nursery Production will be able to:

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

CERTIFICATE REQUIREMENTS

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

I. AGRICULTURE CAREER CORE - COMPLETE 5 UNITS

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

II. AGRICULTURE SCIENCE BREADTH CORE - COMPLETE 9 UNITS

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

III. AGRICULTURE MAJOR COURSES - COMPLETE 21 UNITS

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

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 6 UNITS

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

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

**Required

Poultry Science PROGRAM

In this program the student will develop skills and knowledge sufficient to enter the poultry industry or to transfer to a university. Contact the division office in the Agriculture Building for advising assistance.

A.S. Degree: Poultry Science

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Poultry Science will be able to:

1. Demonstrate proficiency in agricultural sciences/engineering by employing the scientific method to solve agricultural problems.
2. Describe basic management techniques used by the Animal Science industry to produce wholesome, safe, environmentally responsible animal products.
3. Demonstrate proficiency in agricultural sciences/engineering by employing the scientific method to solve agricultural problems.
4. Employ safe work habits as prescribed in the "Injury, Illness Prevention Plan" (IIPP) for the program area completed.

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.....	1
AG	349A-D	[NP]	Work Experience (total of 4 units)**	4 OR
AG	249	[NP]	Agriculture Internship**	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
AGEC	225	[NP]	Agriculture Computer Applications	3 OR
AGEC	210	[NP]	Elements of Agriculture Economics	3 OR
AGEC	200	[2,3,4]	Agriculture Accounting and Analysis.....	3

III. AGRICULTURE MAJOR COURSES - COMPLETE 12 UNITS

ANSC	230	[1]	Poultry Science	3
ANSC	214	[NP]	Livestock Feeding and Nutrition	3
ANSC	235	[2]	Poultry Diseases & Housing	3 OR
ANSC	215	[2]	Animal Health and Sanitation.....	3
AGEC	220	[3,4]	Agricultural Business Management.....	3
ANSC	232	[NP]	Avian Practices.....	3
ANSC	236	[2]	Poultry Breeding and Selection.....	3

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 4 UNITS

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

MINIMUM UNITS IN A.S. MAJOR 30

**Required

Recreational Land Management PROGRAM

Certificate of Achievement: Recreational Land Management

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Recreational Land Management will be able to:

1. Employ the scientific method to solve problems in the laboratory and in the natural environment.
2. Practice safe work habits in an employment setting, including handling and storage of hazardous materials and operation of basic tools and equipment.
3. Demonstrate sufficient mastery of forestry and land management skills for technical employment in the natural resource management.
4. Apply the principles of ecology, soil science, silviculture, cartography, and facilities maintenance and development to sustainable resources management problems.
5. Develop environmental ethics as an operational philosophy for resource management, public education of natural resources, and wildlife management.

MAJOR REQUIREMENTS

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

I. AGRICULTURE CAREER CORE - COMPLETE 5 UNITS

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

II. AGRICULTURE SCIENCE BREADTH CORE - COMPLETE 9 UNITS

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

III. MAJOR REQUIRED COURSES FOR CERTIFICATE - COMPLETE 9 UNITS

NR	230	[2]	Outdoor/Forest Recreation	3
NR	222	[2,3]	Native Tree & Shrub Identification.....	3
NR	215	[1]	Wildlife Production.....	3
NR	220	[1]	Introductory Forestry.....	3
NR	379	[NP]	Wildland Fire Control.....	1

IV. ELECTIVE COURSES FOR CERTIFICATE - COMPLETE 12 UNITS

Any Natural Resources class not listed or used above				
AG	280	[NP]	Agricultural Computations.....	3
AGM	230	[NP]	Field Surveying.....	3
AG	285	[NP]	Agricultural Communications	3
AGM	215	[NP]	Machinery Management	2
EHS	276	[NP]	Landscape Maintenance.....	3

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

**Required

A.S. Degree: Recreational Land Management

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Recreational Land Management will be able to:

1. *Employ the scientific method to solve problems in the laboratory and in the natural environment.*
2. *Practice safe work habits in an employment setting, including handling and storage of hazardous materials and operation of basic tools and equipment.*
3. *Demonstrate sufficient mastery of forestry and land management skills for technical employment in the natural resource management.*
4. *Apply the principles of ecology, soil science, silviculture, cartography, and facilities maintenance and development to sustainable resources management problems.*
5. *Develop environmental ethics as an operational philosophy for resource management, public education of natural resources, and wildlife management.*

MAJOR REQUIREMENTS

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

I. AGRICULTURE CAREER REQUIRED - COMPLETE 5 UNITS

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

II. AGRICULTURE SCIENCE BREADTH REQUIRED - COMPLETE 9 UNITS

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

III. AGRICULTURE MAJOR REQUIRED - COMPLETE 9 UNITS

NR	230	[2]	Outdoor/Forest Recreation.....	3
NR	222	[2,3]	Native Tree & Shrub Identification.....	3
NR	215	[1]	Wildlife Production.....	3
NR	220	[1]	Introduction to Forestry.....	3

IV. AGRICULTURE MAJOR ELECTIVE - COMPLETE 7 UNITS

Any Natural Resources course not listed or used above.....					3
EHS	276	[2]	Landscape Maintenance.....	3	
AG	280	[NP]	Agriculture Computations.....	3	
AGM	230	[NP]	Field Surveying.....	2	
AG	285	[NP]	Agricultural Communications.....	3	
AGM	215	[NP]	Machinery Management.....	2	

MINIMUM UNITS IN A.S. MAJOR 30

**Required

Soil Science PROGRAM

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.

A.S. Degree: Soil Science

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Soil Science will be able to:

1. *Employ the scientific method to solve problems in the laboratory and in the natural environment.*
2. *Practice safe work habits in an employment setting, including handling and storage of hazardous materials and operation of basic tools and equipment.*
3. *Demonstrate sufficient mastery of forestry and land management skills for technical employment in the natural resource management.*
4. *Apply the principles of ecology, soil science, silviculture, cartography, and facilities maintenance and development to sustainable resources management problems.*
5. *Develop environmental ethics as an operational philosophy for resource management, public education of natural resources, and wildlife management.*

MAJOR REQUIREMENTS

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

I. AGRICULTURE CAREER CORE - COMPLETE 5 UNITS

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

II. AGRICULTURE SCIENCE BREADTH CORE - COMPLETE 9 UNITS

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

III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS

Complete 4 units				
NR	200	[1,2]	Soils.....	4
Complete 5 units				
AGM	235	[3,4]	Irrigation & Drainage.....	3
PLSC	250	[3,4]	Plant Nutrition & Fertilizers.....	3
PLSC	230	[1,2]	Fruit Science.....	3
PLSC	205	[1,2]	Field Crops.....	3
NR	220	[3,4]	Introductory Forestry.....	3
PLSC	241	[3,4]	Viticulture.....	3

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 7 UNITS

NR	222	[1,2]	Native Tree & Shrub Identification.....	3
NR	224	[3,4]	Introduction to Forestry Measurement.....	3
EHS	210	[1,2]	Introduction to Environmental Horticulture.....	3
PLSC	255	[3,4]	Plant Pest Control.....	3
AGM	230	[1,2]	Field Surveying.....	2
PLSC	260	[3,4]	Plant Disease Control.....	3
AGGE	146	[3,4]	Agriculture, Environment & Society.....	3

Any course not already taken in Area III. above

MINIMUM UNITS IN A.S. MAJOR 30

**Required

Veterinary Technician PROGRAM

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.

Certificate of Achievement: Veterinary Technician

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Veterinary Technician will be able 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	250	[2]	Veterinary Physiology, Anatomy, and Terminology.....	3
ANSC	251	[3]	Veterinary Pharmacy Procedures.....	2
ANSC	252	[4]	Veterinary Equipment: Operation Instrumentation and Safety.....	3
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
ANSC	257	[4]	Veterinary Assistance & Nursing: Animal Handling.....	2

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.

PROGRAMS OFFERED

Allied Health

DEGREES, CERTIFICATES, & SKILLS RECOGNITIONS

Patrick Bettencourt, Dean

West Campus
Glacier Hall, Room 165
(209) 575-6362
www.mjc.edu/alliedhealth

INSTRUCTION IN:

Medical Assisting (MDAST)
Nursing (NURSE)
Nursing Skills (NURSK)
Respiratory Care (RSCR)

AWARDS IN:

Medical Assisting (CMA), AS, C
Nursing, Associate Degree (RN), AS
Nursing, LVN to ADN Advanced Placement
Pathway (LVN to RN), AS
Nursing, LVN 30 Unit Option (RN), C
Nursing, Nurse Assistant (CNA), SR
Respiratory Care (CRT, RRT), AS

SUPPORT STAFF

Kendis Bettencourt, Program Specialist
Donna Blagg, Administrative Assistant
Scotty Gonser, Instructional Support Specialist
Martha Lee, Administrative Specialist
Elaine Schuber, Administrative Secretary
Lynn Spidell, Administrative Assistant
Maureen Warren, Administrative Assistant

Medical Assisting PROGRAM

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 MJC 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 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 and search Medical Assisting Programs. For academic advising, contact Shirley Buzbee, Medical Assisting Program Director, 575-6377.

ELIGIBILITY AND PREPARATION FOR THE MEDICAL ASSISTING PROGRAM

- **Admission To Modesto Junior College**
- **High School Graduation Or Equivalent (GED or College Degree)**
If you have transcripts on file verifying a college degree, you do not need to have your high school transcripts on file.
- **Transcripts on File in MJC Enrollment Services**
All transcripts (high school or equivalent and other colleges) must be on file in MJC Enrollment Services, Student Services Building, 102, (209) 575-6853 prior to the Program application deadline. Enrollment Services will accept hand-carried transcripts that are in a sealed envelope with a school seal.

RECOMMENDED COMPETENCIES (FOR CERTIFICATE OF ACHIEVEMENT)

Complete English, math and reading assessment requirements by the program application deadline. The following competencies are recommended for success in the Medical Assisting Program.

WRITING COMPETENCY

ENGL 49 [NP] Basic English Skills (C or better).....5 **OR**
Eligibility for ENGL 50 on assessment test

MATH COMPETENCY

MATH 20 [NP] Pre-algebra (C or better).....5 **OR**
Eligibility for Math 70 on assessment test

READING COMPETENCY

READ 184 [NP] Critical Reading (C or better).....3 **OR**
Reading competency (85) on Accuplacer **OR** completion of a college

degree

from a regionally accredited college or university.

PROGRAM PREREQUISITES

[None required]

PROGRAM APPLICATION

Applications are available on the Allied Health website www.mjc.edu/alliedhealth

February 1- April 15

Applications will continue to be accepted until the program is full or

August 15.

SELECTION PROCESS FOR THE PROGRAM

In the event there are more qualified applicants than space available in the Program, a weighted lottery system will be employed. An applicant's name will be entered an extra time for:

- ANATOMY AND PHYSIOLOGY
Satisfactory completion of AP 50
- PSYCHOLOGY
Satisfactory completion of PSYCH 51 **OR** PSYCH 101
- SPEECH COMMUNICATION
Satisfactory completion of SPCOM 100 **OR** SPCOM 102 **OR** SPCOM 130
- MEDICAL TERMINOLOGY
Satisfactory completion of MDAST 321

ADDITIONAL REQUIREMENTS FOR ACCEPTED APPLICANTS ONLY

Accepted applicants will receive information with instructions for completing the health clearance, background check, drug screen, and BLS certification.

HEALTH CLEARANCE

- A medical history and physical examination completed by a physician, physician's assistant, or nurse practitioner within 3 months prior to program start date. The physical must state that the applicant does not have any health conditions that would create a hazard to self, employees, or patients.
- Documentation of required immunizations.
- A negative PPD skin test must be obtained. If a positive reaction is obtained, or has previously been obtained, a chest x-ray must be taken unless medically contraindicated.

BACKGROUND CHECK

Practicum sites will require students to provide a background check Certificate of Verification before they will be allowed to participate in the practicum portion of the program.

DRUG SCREEN

All students participating in the practicum experience will be required by the practicum sites to pass a drug screen.

BLS CERTIFICATION

The Medical Assisting Program will offer a BLS course for all accepted candidates. Details regarding date, time, location, and cost will be included in the acceptance letter. BLS certification must be from the American Heart Association; for the Healthcare Provider (infant, child and adult); eligible for recertification; and current throughout the program.

SCHOLASTIC REQUIREMENTS

In order to be eligible for the National Certification Examination, all program requirements must be completed with a grade of C or better. If a student receives less than a C in any required course, that course must be repeated with a C or better in order to be eligible to take the AAMA Certification Exam.

POLICY FOR DENIAL OF CERTIFICATION

Beginning with the January 2001 administration of the Certification Examination, felons are no longer eligible for the Certification Examination unless the American Association of Medical Assistants (AAMA) Certifying Board grants a waiver based on one or more of the mitigating circumstances listed in the Disciplinary Standards. Any student considering a career in medical assisting, who has a criminal record, is advised to contact the AAMA for advisement prior to entering the Medical Assisting Program.

American Association of Medical Assistants

20 N. Wacker Drive, Suite 1575
Chicago, IL 60606-2903
(800) 228-2262
www.aama.ntl.org

PROGRAM ADVISORY

Students are strongly advised to complete the required curriculum listed under Required Courses (Non Medical Assisting) prior to entering the Medical Assisting program. These courses must be completed by the second semester of the program with a grade of C or better in order to complete the Medical Assisting program and be eligible to take the CMA exam.

**Certificate of Achievement:
Medical Assisting**

EXPECTED STUDENT LEARNING OUTCOMES

Students who complete the Certificate of Achievement in Medical Assisting will be able to:

1. Provide competent medical assisting care, in variety of settings, based on the entry-level competencies for the Medical Assistant.
2. Communicate effectively with colleagues, patients/clients, and other members of the health care team.
3. Establish and maintain professional working relationships with men and women from diverse backgrounds.
4. Demonstrate understanding of the legal implications of healthcare and use critical thinking skills to make ethical decisions.
5. Set and achieve professional goals.
6. Make a substantial contribution to the quality of healthcare by representing the medical assisting profession with pride and dedication.

REQUIRED COURSES (NON MEDICAL ASSISTING)

AP 50	Elementary Human Anatomy and Physiology	3
PSYCH 51	Psychology in Everyday Life	3 OR
PSYCH 101	General Psychology	3
SPCOM 100	Fundamentals of Public Speaking	3 OR
SPCOM 102	Introduction to Human Communication	3 OR
SPCOM 130	Intercultural Communication	3

REQUIRED COURSES (MEDICAL ASSISTING)

[FALL SEMESTER]

MDAST 320	Introduction to Medical Assisting	3
MDAST 321	Medical Terminology	3
MDAST 322	Medical Assisting Administrative Procedures.....	3½
MDAST 323	Medical Assisting Clinical Procedures.....	3

[SPRING SEMESTER]

MDAST 324	Introduction to Diseases and Pharmacology	4
MDAST 325	Laboratory Procedures	3
MDAST 326	Medical Assisting Practicum	7

MINIMUM UNITS REQUIRED IN CERTIFICATE.....35½

A.S. Degree: Medical Assisting

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Medical Assisting will be able 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.

MINIMUM UNITS REQUIRED IN A.S. DEGREE 60

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

**Nursing: Associate
Degree Nursing PROGRAM**

The Associate Degree Nursing (ADN) Program at Modesto Junior College prepares students to take the National Council Licensure Examination (NCLEX-RN), leading to licensure as a Registered Nurse (RN). The program is approved by the California Board of Registered Nursing.

The ADN Program begins in the fall and spring semesters of each year. It is a four-semester program. Although most classes are scheduled during the day, clinical experiences may include both morning and evening hours and weekends. During the five-week Preceptorship in NURSE 267, students will be expected to be in the clinical area on a full-time basis. Students must be flexible and prepared to accept these assignments.

Program expenses vary for each individual. The estimated cost for the program is \$6,000. First semester start-up costs are \$2,000. Second, third, and fourth semesters costs total \$4,000. These costs include enrollment and materials fees, background check and drug screen fees, health clearance, uniforms, books, and pre-licensure readiness examination.

If you would like information on Financial Aid, call (209) 575-7700. If you would like more information about the program and the selection process, please enroll in NURSE 115: Introduction for Nursing Majors. If you have questions about program information, call Allied Health, 575-6362 or visit the Allied Health website at www.mjc.edu/alliedhealth and search Associate Degree Nursing (ADN) Program. If you are just beginning your preparation for the nursing program and need academic advising, contact the Counseling Center (209) 575-6080.

**ELIGIBILITY AND PREPARATION FOR THE
ASSOCIATE DEGREE NURSING PROGRAM**

- **Admission to Modesto Junior College**
- **High School Graduation or Equivalent** (GED or college degree) If you have transcripts on file verifying a college degree, you do not need to have your high school transcripts on file.
- **Official Transcripts on File in MJC Enrollment Services:** All transcripts (high school or equivalent and other colleges) must be submitted with the program application to Allied Health, prior to the program application deadline, unless the transcripts are already

PROGRAMS OFFERED

PROGRAMS IN **ALLIED HEALTH**

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

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

PROGRAM APPLICATION

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. Applications may be submitted in person or mailed, but must be received in the Allied Health office or postmarked by the application deadline. If you are interested in the MJC ADN transfer policy go to www.mjc.edu/alliedhealth.

SELECTION PROCESS

CHANGES IN THE SELECTION PROCESS

The ADN Program will utilize a multicriteria screening process for admission effective with the May 2014 application period. Detailed information will be posted on the ADN website May 2013. Once the multicriteria selection process is in effect, the Required Non-Nursing courses (psychology, sociology, and speech communication) will become prerequisites for the nursing program requiring a grade of C or better on transcript at the time of application.

CHANCELLOR'S MODEL

The MJC ADN Program uses the California Community College Chancellor's Model for selection of program applicants. Applicants must achieve a Success Index score of 75 or higher to be qualified. Randomized selection will be used to select students from the pool of applicants with a score of 75 and above. The following four values are included in the selection formula for the Chancellor's Model:

- **College GPA:** All lower division courses with grades on transcripts are included in calculating this GPA.
- **College English GPA:** All transferable lower division English courses are included in calculating this GPA.
- **Core Biology GPA:** The highest grade for the core biology courses (ANAT 125, PHYSO 101 and MICRO 101) will be used. If a student is permitted to repeat a course for a grade improvement in which the student initially received a "C" or higher, the highest grade will be used to calculate the core biology GPA.
- **Core Biology Repetitions:** The overall composite score is lowered for each unsuccessful attempt of the core biology coursework (NP, W, D and F). Courses initially completed with "C" grades will not be counted as repetitions.

Note: The Chancellor's Model only penalizes students for repeats within 6 years of application to the program. NP, W, D and F grades in the core biology courses will not be counted as repeats if they are more than six years old.

MULTIPLE APPLICATIONS

If an applicant has applied to the program more than once, as a qualified applicant, the applicant's name will be added to the randomized selection an additional time for each such application. An applicant is considered "qualified" if all admission requirements have been met, a complete application packet has been submitted by the application deadline, and a Success Index score of 75 has been achieved on the Chancellor's Model scoring formula. Applications for previously qualified applicants are available from the Allied Health website during the May application period only.

ADDITIONAL REQUIREMENTS FOR CONDITIONALLY ACCEPTED APPLICANTS ONLY

Conditionally accepted applicants will receive information regarding clinical clearance and the Test of Essential Academic Skills (TEAS) 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 The ADN program will offer a Health Care Provider BLS class from the American Heart Association for all accepted applicants.

TEST OF ESSENTIAL ACADEMIC SKILLS (TEAS)

Conditionally accepted applicants will be required to take the Test of Essential Academic Skills (TEAS) which will measure skills in the content area domains of Reading, Mathematics, Science, and English and Language Usage. Preparation materials are available from Assessment Technologies Institute (ATI) at www.atitesting.com. Conditionally accepted applicants will be provided with detailed information on scheduling of the TEAS. A predetermined cut score must be achieved on the TEAS.

SCHOLASTIC REQUIREMENTS

Continuation in the ADN Program is dependent upon completion of all courses with a C or better. If a student receives less than a C in any required course, that course must be repeated with a C or better in order to qualify for the National Council Licensure Examination (NCLEX-RN).

DENIAL OF LICENSURE

The California Board of Registered Nursing protects the public by screening applicants for licensure in order to identify potentially unsafe practitioners. Statutory authority for denial of licensure is contained in the Business and Professions Code. Any student considering a career in nursing who has a criminal record is advised to go to the BRN website at www.m.ca.gov and search *Enforcement* and then *License Discipline and Convictions* prior to applying to the ADN Program.

- **Criminal Record** Per the Board of Registered Nursing, pre-nursing students with a criminal record should attempt to have convictions expunged prior to applying for entrance into the nursing program. A criminal record may prevent students from clinical placement and therefore continuing in a nursing program.

PROGRAM ADVISORY

Students are strongly advised to complete the required curriculum listed under Required Courses (Non-Nursing) and additional associate degree requirements prior to entering the ADN Program. These courses must be completed by the 4th semester of the program with a grade of C or better in order to complete the ADN program and be eligible to take the NCLEX-RN exam. To graduate from the MJC ADN program, a student must: 1) complete all ADN program requirements; 2) complete the 4th semester of the MJC ADN program; and 3) complete 12 units "in residence" at MJC.

AS Degree: Nursing (for RN)

The Associate Degree Nursing (ADN) Program at Modesto Junior College prepares students to take the National Council Licensure Examination (NCLEX-RN), leading to licensure as a Registered Nurse (RN). The program is approved by the California Board of Registered Nursing.

EXPECTED STUDENT LEARNING OUTCOMES

Upon satisfactory completion of this program, the student will be able to:

1. Provide competent nursing care based on scientific principles, the Roy Adaptation Model, and the nursing process, reflecting an ethic of caring evidenced by respect for patients and families, self, colleagues, and the profession.
2. Identify a nursing diagnosis following assessment of the patient's physical condition and behavior, and analysis of information obtained from the patient and others, including members of the health care team.
3. Formulate a care plan, in collaboration with the patient that ensures direct and indirect nursing care services provide for the following patient needs: safety, comfort, hygiene, protection, disease prevention, and restorative measures.
4. As provider and manager of care, establish priorities, perform the skills required to carry out nursing interventions, explain the plan of care to the patient and family, and teach the patient and family how to care for identified health problems and needs.
5. Manage and prioritize care for groups of patients; delegate tasks to subordinates based on the legal scope of practice of the subordinates and on the preparation and competence needed for the tasks to be delegated; effectively supervise the nursing care provided by subordinates.
6. Evaluate the effectiveness of the care plan through observation of the patient's condition and behavior, signs and symptoms of illness, and reactions to treatment, and through communications with the patient and health care team; modify the plan as needed.
7. Advocate for the rights of patients by initiating actions to improve health care, facilitate changes in decisions or activities which conflict with patients' self-determination, and provide patients the opportunity to make informed decisions about their health care.
8. Recognize that each person is a unique individual with biological, psychological, social, and spiritual needs; understand how a person's self-concept, role function, and interdependence are affected by the values, attitudes, life experiences, culture, ethnicity, and support systems of each person.

PROGRAM PREREQUISITES

The following 4 prerequisites must be completed with a grade on transcript by the application deadline. All courses must be completed with a grade of C or better. A GPA of 2.6 or higher is recommended for the core biology prerequisites (ANAT 125, PHYSO 101, and MICRO 101.)

ANAT 125	Human Anatomy.....	5
MICRO 101	Microbiology	4
PHYSO 101	Introductory Human Physiology.....	5
ENGL 101	Composition and Reading.....	3

MAJOR REQUIREMENTS

- To earn an Associate in Science Degree in Nursing the student must complete the requirements detailed in the Career Technical Pathway (p. 69) or the University Preparation Pathway (p. 65) in addition to the Nursing/LVN to ADN Advanced Placement Pathway coursework. Consult with an advisor for selection of courses.

REQUIRED COURSES (NON-NURSING)

The following courses are required for the AS Degree in Associate Degree Nursing. Completion of

these Nursing requirements also satisfies some institutional General Education requirements

PSYCHOLOGY - Complete one course

PSYCH 101	General Psychology.....	3
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ANTHROPOLOGY & SOCIOLOGY - Complete one course

ANTHR 102	Cultural Anthropology.....	3
SOCIO 101	Introduction to Sociology).....	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

SPEECH COMMUNICATION - Complete one course

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

REQUIRED COURSES (NURSING)

1st Semester

NURSE 260	[1]	Nursing Process: Pharmacology.....	2
NURSE 261	[1]	Nursing Process: Fundamentals.....	8

2nd Semester

NURSE 262	[2]	Nursing Process: Skills.....	½
NURSE 263	[2]	Nursing Process: Maternity.....	4
NURSE 264	[2]	Nursing Process: Pediatrics.....	4.5

3rd Semester

NURSE 265	[3]	Nursing Process: Medical-Surgical.....	6
NURSE 266	[3]	Nursing Process: Mental Health.....	4

4th Semester

NURSE 267	[4]	Nursing Process: Adv. Medical - Surgical.....	11
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TOTAL UNITS IN NURSING MAJOR	49
MINIMUM UNITS REQUIRED IN AS DEGREE	71½

PROGRAMS OFFERED

Nursing: LVN to ADN (RN) Advanced Placement PATHWAY

The Licensed Vocational Nurse (LVN) to Associate Degree Nursing (ADN) Advanced Placement Pathway at Modesto Junior College prepares students to take the National Council Licensure Examination (NCLEX-RN), leading to licensure as a Registered Nurse (RN). The pathway is approved by the California Board of Registered Nursing.

The LVN to ADN Advanced Placement Pathway begins in the fall and spring semesters of each year. It is a two-semester pathway. Although most classes are scheduled during the day, clinical experiences may include both morning and evening hours. During the five-week preceptorship NURSE 267, students will be expected to be in the clinical area on a full-time basis. Students must be flexible and prepared to accept these assignments.

Pathway expenses vary for each individual. The estimated cost for the pathway is \$4,000. First semester start-up costs are \$2,000. Second semester costs \$2,000. These costs include enrollment and materials fees, background check and drug screen fees, health clearance, uniforms, books and pre-licensure readiness examination. If you would like information on Financial Aid, call 575-7700. For academic advising contact Allied Health, 575-6362. If you have questions about the program information, call Allied Health, 575-6362 or visit the Allied Health website at www.mjc.edu/alliedhealth and search LVN to ADN Advanced Placement Pathway.

EXPECTED LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Nursing will be able to:

1. Provide competent nursing care based on scientific principles, the Roy Adaptation Model, and the nursing process, reflecting an ethic of caring evidenced by respect for patients and families, self, colleagues, and the profession.
2. Identify a nursing diagnosis following assessment of the patient's physical condition and behavior, an analysis of information obtained from the patient and others, including members of the health care team.
3. Formulate a care plan, in collaboration with the patient that ensures direct and indirect nursing care services that provide for the following patient needs: safety, comfort, hygiene, protection, disease prevention, and restorative measures.
4. As provider and manager of care, establish priorities, perform the skills required to carry out nursing interventions, explain the plan of care to the patient and family, and teach the patient and family how to care for identified health problems and needs.
5. Manage and prioritize care for groups of patients; delegate tasks to subordinates based on the legal scope of practice of the subordinates and on the preparation and competence needed for the tasks to be delegated; and effectively supervise the nursing care provided by subordinates.
6. Evaluate the effectiveness of the care plan through observation of the patient's condition and behavior, signs and symptoms of illness, reactions to treatment, and thorough communication with the patient and the health care team; and modify the plan as needed.
7. Advocate for the rights of patients by initiating actions to improve health care, facilitate changes in decisions or activities that conflict with patients' self-determination, and provide patients the opportunity to make informed decisions about their health care.
8. Recognize that each person is a unique individual with biological, psychological, social, and spiritual needs; understand how a person's self-concept, role function, and interdependence are affected by the values, attitudes, life experiences, culture, ethnicity, and support systems of each person.

ELIGIBILITY AND PREPARATION FOR THE LVN TO ADN ADVANCED PLACEMENT PATHWAY

- **Admission to Modesto Junior College**
- **High School Graduation or Equivalent** (GED or college degree) If you have transcripts on file verifying a college degree, you do not need to have your high school transcripts on file.
- **Official Transcripts on File in MJC Enrollment Services:** All transcripts (high school or equivalent and other colleges) 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 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 90 or higher level MATH course, or an equivalent course from another institution with a grade of C or higher.

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

PATHWAY PREREQUISITES

The following prerequisites must be completed with a grade on transcript prior to the program application deadline. All courses must be completed with a grade of C or better.

ANAT 125	Human Anatomy	5
MICRO 101	Microbiology	4
PHYSO 101	Introductory to Human Physiology	5
ENGL 101	Composition and Reading.....	3
NURSE 259	LVN Transition: Role Change Preparation.....	2

The following prerequisite courses may be in progress at the time of application but must be completed prior to entering the ADN Program.

PSYCH 101	General Psychology.....	3
ANTHR 102	Cultural Anthropology.....	3 OR
SOCIO 101	Introduction to Sociology.....	3 OR
SOCIO 125	Sociology of the Family.....	3 OR
SOCIO 150	Ethnicity and Culture in America	3 OR
SOCIO 154	African-American Cultures and Communities	3 OR
SOCIO 156	Mexican Culture in the United States.....	3
SPCOM 100	Fundamentals of Public Speaking	3 OR
SPCOM 102	Introduction to Human Communication	3 OR
SPCOM 106	Group & Organizational Communication	3 OR
SPCOM 110	Persuasion	3

Must be a licensed vocational nurse in California and submit a copy of the current license.

PATHWAY APPLICATION

Applications are accepted for the LVN to ADN Advanced Placement Pathway twice per year. The biannual application periods are **May 1 through May 31** and **September 1 through September 30**. Students are selected from the applicant pools for fall and spring semesters of the academic year. Applications are available on the Allied Health website (www.mjc.edu/alliedhealth) during the application periods only. Applications may be submitted in person or mailed but must be received in the Allied Health office or postmarked by the application deadline. If you are interested in the MJC ADN transfer policy go to www.mjc.edu/alliedhealth.

SELECTION PROCESS

CHANGES IN THE SELECTION PROCESS

The ADN Program will utilize a multicriteria screening process for admission effective with the May 2014 application period. Detailed information will be posted on the LVN to ADN Advanced Placement Pathway website May 2013.

LVN to ADN Advanced Placement Pathway applicants are selected on a space-available basis. Priority is given to applicants who have completed pathway prerequisites with grades on transcript at time of application.

CHANCELLOR'S MODEL

The MJC LVN to ADN Advanced Placement Pathway uses the California Community College Chancellor's Model for selection of pathway applicants. Applicants must achieve a Success Index score of 70 or higher to be qualified. Randomized selection will be used to select students from the pool of applicants with a score of 70 and above. The following four values are included in the selection formula for the Chancellor's Model:

- **College GPA:** All lower division courses with grades on transcripts are included in calculating this GPA.
- **College English GPA:** All transferable lower division English courses are included in calculating this GPA.
- **Core Biology GPA:** The highest grade for the core biology courses (ANAT 125, PHYSO 101 and MICRO 101) will be used. If a student is permitted to repeat a course for a grade improvement in which the student initially received a C or better, the highest grade will be used to calculate the core biology GPA.
- **Core Biology Repetitions:** The overall composite score is lowered for each unsuccessful attempt of the core biology coursework (NP, W, D and F). Courses initially completed with C grades will not be counted as repetitions.

Note: The Chancellor's Model only penalizes students for repeats within 6 years of application to the program. NP, W, D and F grades in the core biology courses will not be counted as repeats if they are more than six years old.

MULTIPLE APPLICATIONS

If an applicant has applied to the LVN to ADN Advanced Placement Pathway more than once, as a qualified applicant, the applicant's name will be added to the randomized selection an additional time for each such application. An applicant is considered "qualified" if all admission requirements have been met, a complete application packet has been submitted by the application deadline, and a Success Index score of 70 has been achieved on the Chancellor's Model scoring formula. Applications for previously qualified applicants are available on the Allied Health website during the application periods only.

**ADDITIONAL REQUIREMENTS FOR
CONDITIONALLY ACCEPTED APPLICANTS ONLY**

Conditionally accepted applicants will receive information regarding clinical clearance and the Test of Essential Academic Skills (TEAS) 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 The ADN program will offer a Health Care Provider BLS class from the American Heart Association for all accepted applicants.

TEST OF ESSENTIAL ACADEMIC SKILLS (TEAS)

Conditionally accepted applicants will be required to take the Test of Essential Academic Skills (TEAS) which will measure skills in the content area domains of Reading, Mathematics,

Science, and English and Language Usage. Preparation materials are available from Assessment Technologies Institute (ATI) at www.atitesting.com. Conditionally accepted applicants will be provided with detailed information on scheduling of the TEAS. A predetermined cut score must be achieved on the TEAS.

WRITTEN AND SKILLS PROFICIENCY TESTING

In selected cases, both written and skills proficiency testing may be required.

SCHOLASTIC REQUIREMENTS

Continuation in the LVN to ADN Advanced Placement Pathway is dependent upon completion of all courses with a C grade or better. If a student receives less than a C in any required course, that course must be repeated with a C or better in order to qualify for the National Council Licensure Examination (NCLEX-RN).

DENIAL OF LICENSURE

The California Board of Registered Nursing protects the public by screening applicants for licensure in order to identify potentially unsafe practitioners. Statutory authority for denial of licensure is contained in the Business and Professions Code. Any student considering a career in nursing who has a criminal record is advised to go to the BRN website at www.m.ca.gov and search *Enforcement* and then *License Discipline and Convictions* prior to applying to the ADN Program.

- **Criminal Record** Per the Board of Registered Nursing, pre-nursing students with a criminal record should attempt to have convictions expunged prior to applying for entrance into the nursing program. A criminal record may prevent students from clinical placement and therefore continuing in a nursing program.

PATHWAY ADVISORY

Students are strongly advised to complete the required curriculum listed under Additional Associate Degree Requirements prior to entering the LVN to ADN Advanced Placement Pathway. These courses must be completed by the 4th semester of the Program with a grade of C or better in order to complete the LVN to ADN Advanced Placement Pathway and be eligible to take the NCLEX-RN exam. To graduate from the MJC ADN program, a student must: 1) complete all ADN program requirements; 2) complete the 4th semester of the MJC ADN program; and 3) complete 12 units "in residence" at MJC.

**A.S. Degree: Nursing/LVN to ADN
Advanced Placement Pathway****EXPECTED LEARNING OUTCOMES**

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Nursing/LVN to AND Advanced Placement Pathway will be able to:

1. Provide competent nursing care based on scientific principles, the Roy Adaptation Model, and the nursing process, reflecting an ethic of caring evidenced by respect for patients and families, self, colleagues, and the profession.
2. Identify a nursing diagnosis following assessment of the patient's physical condition and behavior, an analysis of information obtained from the patient and others, including members of the health care team.
3. Formulate a care plan, in collaboration with the patient that ensures direct and indirect nursing care services that provide for the following patient needs: safety, comfort, hygiene, protection, disease prevention, and restorative measures.
4. As provider and manager of care, establish priorities, perform the skills required to carry out nursing interventions, explain the plan of care to the patient and family, and teach the patient and family how to care for identified health problems and needs.
5. Manage and prioritize care for groups of patients; delegate tasks to subordinates based on the legal scope of practice of the subordinates and on the preparation and competence needed for the tasks to be delegated; and effectively supervise the nursing care provided by subordinates.
6. Evaluate the effectiveness of the care plan through observation of the patient's condition and behavior, signs and symptoms of illness, reactions to treatment, and through communication

PROGRAMS IN **ALLIED HEALTH**

with the patient and the health care team; and modify the plan as needed.

- 7. Advocate for the rights of patients by initiating actions to improve health care, facilitate changes in decisions or activities that conflict with patients' self-determination, and provide patients the opportunity to make informed decisions about their health care.
 - 8. Recognize that each person is a unique individual with biological, psychological, social, and spiritual needs; understand how a person's self-concept, role function, and interdependence are affected by the values, attitudes, life experiences, culture, ethnicity, and support systems of each person.
- To earn an associate in Science Degree in Nursing the student must complete the requirements detailed in the Career Technical Pathway (p. 69) or the University Preparation Pathway (p. 65) in addition to the Nursing/LVN to ADN Advanced Placement Pathway coursework. Consult with an advisor for selection of courses.

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

- NURSE 115: Introduction for Nursing Majors, no longer meets the Guidance requirement, but is recommended for success. To graduate from the MJC ADN program, a student must: 1) complete all LVN to ADN Advanced Placement Pathway requirements; 2) complete the 4th semester of the MJC ADN program; and 3) complete 12 units "in residence" at MJC.

REQUIRED COURSES (NURSING)

[First Semester]

NURSE 265	Nursing Process: Medical-Surgical.....	6
NURSE 266	Nursing Process: Mental Health.....	4

[Second Semester]

NURSE 267	Nursing Process: Advanced Medical-Surgical	11
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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.

TOTAL UNITS FOR LVN TO ADN ADVANCED PLACEMENT PATHWAY54½

Nursing: LVN 30 Unit Option (LVN to RN)

In addition to the LVN to ADN Advanced Placement Pathway, there is also a LVN 30 Unit Option which prepares students to take the NCLEX-RN examination, but does not award an A.S. degree. Students interested in this option should contact the Director of Nursing in Allied Health for information and advising.

Nursing: Nurse Assistant PROGRAM (CNA)

The Nurse Assistant Program at Modesto Junior College is a one-semester course (NURSE 40, 5 units) that includes 50 hours of classroom instruction and 100 hours of supervised clinical experience within the guidelines set by the State Department of Health Services. NURSE 40 is offered in the fall and spring semesters. After completing Nurse 40 with a C or better, students are eligible to take the certification examination to become a certified nurse assistant (CNA). The exam has been developed to meet the evaluation requirements of federal and state nurse aid and competency evaluation legislation. Red Cross testing is available at MJC at the end of each class.

Program expenses vary for each individual. The estimated cost for the Nurse Assistant Program is \$650 that includes books, enrollment, health clearance, and certification examination and application fees. For financial aid information, call (209) 575-7700. If you have questions about program information, contact Allied Health, 575-6362 or visit the Allied Health website at www.mjc.edu/alliedhealth and search Nurse Assistant Program.

EXPECTED LEARNING OUTCOMES

Students who complete the Skills Recognition Award for Nurse Assistant will be able to:

1. Provide competent resident care based on the skill set of a certified nurse assistant (CNA).
2. Complete the required hours for theory and clinical as set by the state of California.
3. Provide compassionate end of life care
4. Communicate professionally with residents, families, peers and profession staff.
5. Pass the state of California certification examination as a Certified Nurse Assistant (CNA).

ELIGIBILITY AND PREPARATION FOR THE NURSE ASSISTANT PROGRAM

- **Admission to Modesto Junior College**
- **High School Graduation or Equivalent** (GED or College Degree)
Although high school graduation is not required, it is recommended for success.

RECOMMENDED COMPETENCY The following competency is recommended for success in the Nurse Assistant Program.

READ 184 [NP] Critical Reading (C or better).....	5 OR
Reading competency (85) on Accuplacer	OR
Completion of a college degree from an accredited United States	college.

PROGRAM PREREQUISITES

[None required]

PROGRAM APPLICATION

[None required]

Skills Recognition Award: Nurse Assistant

REQUIRED CURRICULUM

NURSE 40	Nurse Assistant.....	5	AND
NURSK 800	Nursing Skills Development.....	0	

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

ADDITIONAL REQUIREMENTS FOR STUDENTS ENROLLED IN NURSE 40

PLEASE NOTE: In order to complete the health clearance process in a timely manner, students who are enrolled in NURSE 40 should contact the Allied Health office and pick up a health clearance packet. It is expected that enrolled students will have already begun the health clearance process by the first day of class.

HEALTH CLEARANCE

- A medical history and physical examination completed by a physician, physician's assistant, or nurse practitioner within 3 months prior to program start date. The physical must state that the applicant does not have any health conditions that would create a hazard to self, employees, or patients.
- Documentation of required immunizations.
- A negative PPD skin test must be obtained. If a positive reaction is obtained, or has previously been obtained, a chest x-ray must be taken unless medically contraindicated.

FINGERPRINTING AND BACKGROUND CHECK

- All students participating in clinical assignments are required to complete a background check and fingerprinting, and be cleared by the clinical facility in order to participate in the clinical experience. The students will not be charged for this requirement.

NURSE ASSISTANT CERTIFICATION APPLICATION (HS-283B)

- Nurse 40 students will receive required forms and instructions on completing the Department of Health Services application process on the first day of class.

POLICY FOR DENIAL OF CERTIFICATION

Individuals who have been convicted of certain penal code violations will not be certified unless the individual submits written evidence obtained from the court of “rehabilitation” (if a felony) or a dismissal of the violation (if a misdemeanor). If you have been convicted of one of these crimes, you should be aware that you cannot be certified unless you meet the specified conditions of rehabilitation or dismissal issued by the courts and have received approval from the Department of Health Services. All other convictions not listed, except minor 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:

Department of Health Services
Licensing and Certification
ATCS MS 3201
PO Box 997416
Sacramento, CA 95899-7416
(916) 327-2445
www.dhs.ca.gov/lnc

Pharmacy Technician

Contact MJC Community Education at (209) 575-6063

Phlebotomy

Contact MJC Community Education at (209) 575-6063

Respiratory Care PROGRAM

The MJC Respiratory Care Program is a two-year associate degree program to prepare students to sit for the State Board Respiratory Care Practitioner Exam. The Respiratory Care Program of Modesto Junior College is accredited by the Commission on Accreditation for Respiratory Care (CoARC). Graduates are also eligible for both Certification and Registration administered by the National Board for Respiratory Care.

Commission on Accreditation for Respiratory Care

1248 Harwood Road
Bedford, Texas 76021-4244
(817) 283-2835
www.coarc.com

Program expenses vary for each individual. The estimated cost of the Respiratory Care Program is \$5000, approximately \$2,500 per year, which includes enrollment and materials fees, health clearance, uniforms, books, and licensure examination. If you would like information on financial aid, call (209) 575-7700.

The MJC Respiratory Care Program begins once a year in January. If you have questions about program information, contact Allied Health, 575-6362 or visit the Allied Health website at www.mjc.edu/alliedhealth and search Respiratory Care Program. For academic advising, contact the Respiratory Care Program Director at 575-6381, the Clinical Director at 575-6388, or the MJC Counseling Office at 575-6080.

ELIGIBILITY AND PREPARATION FOR THE RESPIRATORY CARE PROGRAM

- **Admission To Modesto Junior College**
- **High School Graduation is highly recommended but is not required.**
- **Transcripts on File in MJC Enrollment Services** All college transcripts must be submitted with the program application to Allied Health, prior to the program application deadline, unless the transcripts are already on file in the MJC Enrollment Services, Student Services Building 102, (209) 575-6853. We will accept hand-carried transcripts that are in a sealed envelope with a school seal.

REQUIRED MATH COMPETENCY FOR ACCEPTANCE INTO THE RESPIRATORY CARE PROGRAM

- Eligibility for entrance into any 100-level MATH course through MJC Assessment process OR
- Score of 3,4, or 5 on AP Exam: Calculus AB or Calculus BC or Statistics
- Completion of MATH 90 or higher level MATH course, or an equivalent course from another institution with a grade of C or better

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

CHEM 143 Introductory College Chemistry **5 AND**
AP 150 Integrative Anatomy & Physiology (C or better)..... **4 OR 5**
(ANAT 125 & PHYSO 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 IN ALLIED HEALTH

Applications are available on the Allied Health website (www.mjc.edu/alliedhealth) during the application period only. Applications may be submitted in person or mailed, but must be received in the Allied Health office or postmarked by the application deadline.

SELECTION PROCESS

In order to be fully qualified for admission, applicants must have completed the program prerequisites with a grade of C or better at the time of application. In the event that there are more qualified applicants than space available, a weighted lottery system will be employed. An applicant's name will be entered an extra time for:

- **MICROBIOLOGY** - Satisfactory Completion of MICRO 101
- **PSYCHOLOGY** - Satisfactory completion of PSYCH 101
- **SCIENCE GPA** - A grade point average (GPA) for chemistry, anatomy, and physiology of 3.0 or better **OR** a GPA for microbiology, chemistry, anatomy, and physiology of 2.75 or better.
- **DEGREE REQUIREMENTS** - Completion of the MJC General Education requirements or a bachelor's degree
- **PREVIOUSLY QUALIFIED APPLICANT** - Each previously qualified application to the MJC Respiratory Care program.

If the number of fully qualified applicants falls short of the number of available openings, provisionally qualified students will be eligible for admission. Students who have one or both of the prerequisites in progress at time of application may be provisionally qualified for acceptance into the program based upon completing the prerequisites with a grade of C or better. On a space available basis, applicants who have completed CHEM 143 with a C or better, but have not completed the AP 150 prerequisite may enroll in RSCR 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 APPLICANTS ONLY

Accepted applications will receive information on the clinical clearance process outlined below.

CLINICAL CLEARANCE

Health Clearance

- A medical history and physical examination completed by a physician, physician's 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. This document is available on reserve in the MJC library. Further information on disciplinary guidelines may be obtained from:

Respiratory Care Board of California

444 North 3rd Street Suite 270
Sacramento, CA 95814
Toll Free in California (866) 375-0386
www.rcb.ca.gov/index.html

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

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.S. degree in Respiratory Care at Modesto Junior College, students will be able to:

1. Demonstrate mastery of all duties/functions relevant to and authorized by the provisions of the California State Respiratory Care Practice Act and the Committee on Accreditation of Respiratory Care (CoARC).
2. Demonstrate and uphold safe, quality respiratory care standards.
3. Show an awareness of the psychological and emotional needs of the patient.
4. Demonstrate mastery of the respiratory care duties/functions and render safe, effective quality respiratory care in an ethical manner for the welfare of both the patient and Respiratory Care profession.
5. Identify a diagnosis following assessment of the patient's physical condition and behavior, based on analysis of information obtained from the patient and others, including the health care team.
6. Evaluate the effectiveness of the care plan through observation of the patient's condition and behavior, signs and symptoms of disease, test results, reactions to treatment and thorough communication with the patient and the health care team; make appropriate modifications to the plan as needed.
7. Assume increasing responsibility for their own learning and develop habits, interests, and attitudes favorable to lifelong learning.
8. Successfully complete all required Respiratory Care curriculum in order to receive an A.S. degree in Respiratory Care.
9. Pass the National Board for Respiratory Care Examination for Certification as a Respiratory Care Practitioner as well as the Advanced Practitioner Exam.

REQUIRED COURSES (NON-RESPIRATORY CARE)

PSYCH 101	General Psychology	3
MICRO 101	Microbiology (Prerequisite to RSCR 242)	4

REQUIRED COURSES (RESPIRATORY CARE)

[SPRING]

RSCR 220	Introduction to Respiratory Care Principles	5
RSCR 230	Clinical 1	1

[FALL]

RSCR 222	Basic Cardiopulmonary Anatomy & Physiology	3
RSCR 224	Respiratory Care Theory 2	5
RSCR 232	Clinical 2	3½

[SPRING]

RSCR 240	Advanced Cardiopulmonary Physiology	4½
RSCR 242	Critical Care Procedures	4½
RSCR 250	Clinical 3	3½

[SUMMER - FIRST SESSION]

RSCR 244	Neonatal-Pediatric Respiratory Care	2
RSCR 251	Neonatal and Pediatric Clinical Practice	½

[SUMMER – SECOND SESSION]

RSCR 253	Neonatal and Pediatric Clinical Practice 2.....	½
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[FALL]

RSCR 246	Current Issues in Respiratory Care	3
RSCR 248	Self-Directed Study	½
RSCR 252	Physician Rounds for Respiratory Care	½
RSCR 255	Clinical 4	4½
RSCR 257	Clinical Preceptorship.....	2½

MINIMUM UNITS REQUIRED IN MAJOR..... 51

A.S. Degree: **Respiratory Care**

To earn an Associate in Science Degree in Respiratory Care, the student must complete the requirements detailed in the Career Technical Education Pathway(p. 69) or the University Preparation Pathway (p. 65) in addition to the Respiratory Care coursework. Consult with an advisor for selection of courses.

MINIMUM UNITS REQUIRED IN A.S. DEGREE72½

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

PROGRAMS OFFERED

Arts, Humanities, & Communications

DEGREES, CERTIFICATES, & SKILLS RECOGNITIONS

Michael Sundquist, Dean

East Campus
Performing and Media Arts Center, Room 205
(209) 575-6081

INSTRUCTION IN:

Art (ART)
Dance (THETR)
Humanities (HUMAN)
Music (MUSA, MUSC, MUSG, MUSI, MUSP, MUST)
Photography (ART)
Speech Communication (SPCOM)
Theatre (THETR)

AWARDS IN:

Art, AA
Art & Design, UPAA
Communication Studies AA-T
Humanities, UPAA
Music AA
Photography AA
Speech Communication AA, SR
Theatre AA
Theatre, Design & Technical SR
Theatre Performance, SR

SUPPORT STAFF:

Lee Bailey, Instructional Support Technician
Yan Yan Chan, PhD., Accompanist
John Giorgio, Instructional Support Technician
Donna Hale, Administrative Assistant
Ty Helton, Performing Arts Production Specialist
Wes Page, Video Production Specialist
Rita Perez, Administrative Technician
Lori Sammis, Administrative Secretary
Kevin Saunders, Performing Arts Production Specialist
Anne Shanto, Performing Arts Costume Specialist
David Todd, Photography/Graphics Production Specialist

Art PROGRAM

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

A.A. Degree: Art

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Art will be able 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. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements below. Students who plan to transfer to a four-year college or university should consult with an Art faculty advisor and a counselor to ensure that all required transfer courses are completed.

REQUIRED COURSES - COMPLETE 9 UNITS

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

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

DESIGN AND DRAWING AREA

ART 121	[2]	Basic Drawing 2	3
ART 123	[2]	Figure Drawing	3
ART 125	[3]	Color and Design 2	3

THREE-DIMENSIONAL ART AREA

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

PAINTING AND PRINTMAKING AREA

ART 144	[2]	Watercolor Painting	3
ART 147	[3]	Painting 1 (In Acrylic)	3
ART 148	[2]	Painting 1 (In Oil)	3

ART HISTORY AND APPRECIATION AREA

ART 150	[1]	Gallery Operation and Management	3
ART 162	[NP]	History of Renaissance Art	3
ART 163	[NP]	History of Modern Art	3
ART 164	[NP]	History of Art 1	3
ART 165	[NP]	History of Art 2	3
ART 168	[1]	Survey of Photography	3
ART 169	[NP]	History of Non-Western Art	3

PHOTOGRAPHY AND COMPUTER GRAPHICS AREA

ART 102	[1]	Introduction to Computer Graphics	3
ART 170	[1]	Basic Photography	3
ART 173	[NP]	Digital Imaging for Photographers	3
ART 181	[1]	Basic Photography (1)	1½
ART 182	[2]	Basic Photography (2)	1½

MINIMUM UNITS IN A.A. MAJOR 20

A.A.-T. Degree: Studio Arts

ABOUT THIS AWARD

The Associate in Arts in Studio Arts for Transfer degree focuses on the theory and practice of visual arts skills based on a foundation of both traditional and contemporary practices, with curriculum geared toward transfer to a CSU. This program will provide students with an alignment of courses required for transfer and a cohesive group of courses in the area of Studio Arts. Coursework will provide students with a variety of two- and three-dimensional media in which to develop their capacity to solve problems in new and creative ways. The study and critical analysis of great works of human expression and imagination will allow students to identify the role of the visual arts in traditional and contemporary culture, and further prepare them for meaningful participation in society as visual artists.

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

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

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

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Art will be able 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

AA-T Degree: Studio Arts (for Transfer)

REQUIRED CORE: (12 UNITS)

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

LIST A: (3 UNITS)

ART 164	[NP]	History of Art 1	3
ART 169	[NP]	Survey of Asian Art	3
ART 163	[NP]	History of Modern Art	3

LIST B: (9 UNITS)

ART 123	[NP]	Figure Drawing	3 OR
ART 121	[NP]	Basic Drawing 2	3
ART 147	[NP]	Painting 1 (in Acrylic)	3 OR
ART 148	[NP]	Painting 1 (in Oil)	3
ART 108	[NP]	Ceramics 1	3
ART 140	[NP]	Sculpture 1	3
ART 170	[NP]	Basic Photography	3

TOTAL UNITS REQUIRED IN AS-T MAJOR 24

Units required for CSU-GE Breadth	39 OR
Units required for IGETC/CSU Breadth.....	37-39
CSU Transferable Electives (as needed).....	3-5
Double-Counted Units	6

TOTAL UNITS REQUIRED FOR AS-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.*

Art History PROGRAM

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 Arts 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.

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Studio Arts for Transfer will be able to:

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

The following is required for the AA Degree in Art History for Transfer:

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

AA-T: Art History (for Transfer)

REQUIRED CORE: (COMPLETE 9 UNITS)

ART 164 [NP] History of Art 1	3
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ART 165 [NP] History of Art 2	3
ART 120 [NP] Basic Drawing 1.....	3

LIST A: (3 UNITS)

ART 169 [NP] Survey of Asian Art.....	3
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LIST B: (SELECT ONE: 3 UNITS)

ART 124 [NP] Color and Design 1	3
ART 125 [NP] Color and 3-D Foundation Design.....	3
ART 123 [NP] Figure Drawing.....	3
ART 108 [NP] Ceramics 1.....	3
ART 170 [NP] Basic Photography 1.....	3
ART 140 [NP] Sculpture 1.....	3
ART 148 [NP] Painting 1 (in Oil)	3

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

ART 162 [NP] History of Renaissance Art	3
ART 168 [NP] Survey of Photography.....	3
FREN 101 [NP] French 1	5
GERM 101 [NP] German 1	5
ITAL 101 [NP] Italian 1	5
SPAN 101 [NP] Spanish 1	5

TOTAL UNITS REQUIRED IN AS-T MAJOR 18-20

Units required for IGETC/CSU-GE Breadth.....	37-39
CSU Transferable Electives (as needed).....	10-14
Double-Counted Units	9

TOTAL UNITS REQUIRED FOR AS-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*

Communication Studies for Transfer PROGRAM

ABOUT THIS PROGRAM

This program is designed to prepare students who wish to transfer to a CSU and major in Communication Studies. This program will provide students with an alignment of courses required for transfer and a cohesive group of courses in the area of Speech Communication. Courses such as public speaking, argumentation, and interpersonal communication will enable the student to demonstrate ability to engage in critical thinking and rationality

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.*

A.A.-T: Communication Studies (for Transfer)

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn an Associate in arts degree in Communications Studies will be able to:

1. Construct a speech outline demonstrating clarity of ideas, proper source citations, awareness of audiences, and proper outlining techniques.
 2. Identify and apply principles of interpersonal communication theory to build functional relationships.
 3. Find, evaluate, and incorporate research materials into written and oral argumentation, as well as cite sources accurately.
 4. Adequately debate others, present platform speeches, or perform works of literature in a classroom or outside venue.
- To earn an Associate in Arts for Transfer Degree in this major, the student must complete the requirements detailed in the Transfer Model Curriculum pathway. All courses must be completed with a C or better.

REQUIRED COURSES (3 UNITS)

SPCOM 100 Fundamentals of Public Speaking3

A. COMPLETE 6 UNITS:

SPCOM 104 [NP] Argumentation3 **OR**
 SPCOM 107 [NP] Introduction to Debate3
 SPCOM 103 [NP] Interpersonal Communication3
 SPCOM 106 [NP] Group and Organizational Communication3

B. COMPLETE 6 UNITS:

Any course not used in LIST A
 SPCOM 105* [NP] Forensics Debate.....2
 SPCOM 115* [NP] Forensics Platform Speeches.....2

SPCOM 125* [NP] Forensics Interpretation Events2
 SPCOM 130 [NP] Intercultural Communication3
 SPCOM 135* [NP] Forensics Limited Preparation Events2
 SPCOM 102 [NP] Introduction to Human Communication.....3
 SPCOM 120 [NP] Oral Interpretation3
 SPCOM 110 [NP] Persuasion.....3

*Forensics limited to 2 units

C. COMPLETE 3 UNITS:

SPCOM 101 [NP] Voice and Articulation3
 SPCOM 109 [NP] Women in Management3
 SPCOM 122 [NP] Readers' Theatre3
 SPCOM 123 [NP] Storytelling3
 SPCOM 124 [NP] Advanced Readers' Theatre3

TOTAL UNITS IN AA-T MAJOR 18

NOTE: Double-counting courses in GE and the major is permissible.

MJC Guidance and Activities are not required for the Associate in Arts in Communication Studies for Transfer Degree

Humanities PROGRAM

A.A. Degree: University Preparation, Emphasis in Humanities

EMPHASIS REQUIREMENTS

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

ABOUT THIS EMPHASIS

The humanities include, but are not limited to, the history, theory, comparison, and criticism of a broad range of subjects in the liberal arts, including pictorial, plastic, musical, and performance arts; literature; philosophy; foreign languages and cultures; mythology and comparative religion; and those aspects of the social sciences (such as history and cultural anthropology) that use historical and interpretive rather than quantitative methods of inquiry. The humanities enable us to reflect upon our lives and ask fundamental questions of value, purpose, and meaning in a rigorous and systematic way.

EXPECTED STUDENT LEARNING OUTCOMES

Upon satisfactory completion of this program, the student will be able to:

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

PROGRAM REQUIREMENTS

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

REQUIRED COURSES - COMPLETE 3 COURSES

HUMAN 105	[NP]	Early Humanistic Traditions.....	3
HUMAN 106	[NP]	Humanities in the Modern World.....	3
HUMAN 101	[NP]	Introduction to the Humanities.....	3
HUMAN 110	[NP]	East Meets West.....	3
HUMAN 130	[NP]	Introduction to Western Religions.....	3
HUMAN 140	[NP]	Introduction to World Mythology.....	3

ELECTIVE COURSES - COMPLETE 9 UNITS

ELECTIVE COURSES GROUP 1 - TAKE ONE COURSE FROM THE FOLLOWING

ENGL 116	[NP]	Introduction to Drama.....	3
ENGL 131	[NP]	Introduction to World Literature to 1500.....	3
ENGL 132	[NP]	Introduction to World Literature (1500 to Present).....	3

ENGL 135	[NP]	Survey of American Literature to 1850.....	3
ENGL 136	[NP]	Survey of American Literature: 1850 to the Present.....	3
ENGL 137	[NP]	Survey of English Literature to the 18th Century.....	3
ENGL 138	[NP]	Survey of English Literature: 1700 - Present.....	3
FREN 101	[NP]	French 1.....	5
GERM 101	[NP]	German 1.....	5
ITAL 101	[NP]	Italian 1.....	5
SPAN 101	[NP]	Spanish 1.....	5

ELECTIVE COURSES GROUP 2 - TAKE ONE COURSE FROM THE FOLLOWING

ANTHR 102	[NP]	Cultural Anthropology.....	3
HUMAN 101	[NP]	Introduction to the Humanities.....	3
HUMAN 110	[NP]	East Meets West.....	3
HUMAN 130	[NP]	Introduction to Western Religions.....	3
HUMAN 140	[NP]	Introduction to World Mythology.....	3
PHILO 111	[NP]	Ethics: Theory and Application.....	3
PHILO 120	[NP]	History of Philosophy: Ancient.....	3
PHILO 121	[NP]	History of Philosophy: Modern.....	3
PHILO 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
HIST 104	[NP]	Western Civilization to 1650.....	3
HIST 105	[NP]	Western Civilization since 1650.....	3
MUSG 102	[NP]	Introduction to World Music.....	3
MUSG 121	[NP]	History of Western Music 1.....	3
MUSG 122	[NP]	History of Western Music 2.....	3
THETR 123	[NP]	Storytelling.....	3
THETR 194	[NP]	Introduction to World Dance.....	3

TOTAL UNITS **18 - 20**

PROGRAMS OFFERED

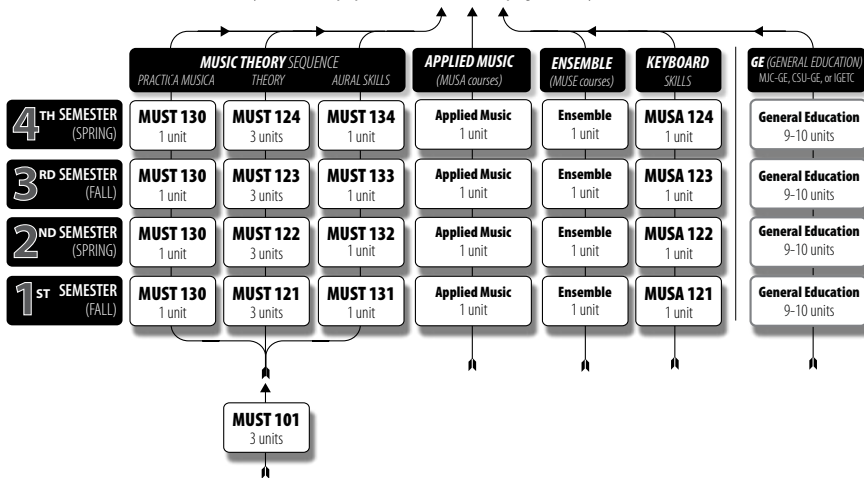
Music PROGRAM

The MJC Music Program offers courses for students wishing to earn an associate's degree in music, general education courses for non-music majors, and courses designed for community members. These include a comprehensive curriculum of music theory and musicianship. Ensemble and production courses include Concert and Symphonic Bands, Day and Evening Jazz Bands, Concert and Chamber Choirs, Masterworks Chorus, Community Orchestra, Guitar Orchestra, opera/musical theatre productions, chamber music performances, and electronic music productions. The program also offers applied studies in piano, organ, harpsichord, guitar, voice, violin/viola, cello/bass, woodwinds, and brass/percussion, as well as survey courses such as Music Appreciation, Introduction to World Music, Introduction to American Popular Music, and History of Western Music.

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 **bachelors degree in music** can lead to careers in fields such as **music performance, music education, music composition and music therapy**. Students who follow the *University Preparation Pathway* and complete the AA: Music requirements will also be eligible for the AA-T in Music degree.

Eligible for AA in Music, AA-T in Music (when following requirements for the University Preparation Pathway) and transfer prepared for bachelor of music programs at 4-year academic institutions



About 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 Orchestra, Concert and Symphonic Band, Guitar Orchestra, as well as other smaller groups. See an advisor to select the appropriate ensemble course for your instrument/voice. Auditions may be required.

Keyboard Skills Courses

Music majors must take keyboard (piano) courses to prepare for the piano proficiency requirement within most bachelor of music degrees. Students whose primary instrument is piano may use applied piano coursework to satisfy this requirement.

General Education Courses

All candidates for an associate degree at MJC are required to satisfy general education requirements. Music majors should see a music advisor to select appropriate GE courses. Prerequisites may be required. 39 units for CSU-GE, 37-39 units for IGETC. Students who plan to pursue a bachelors degree after transferring are advised to follow CSU-GE or IGETC patterns.

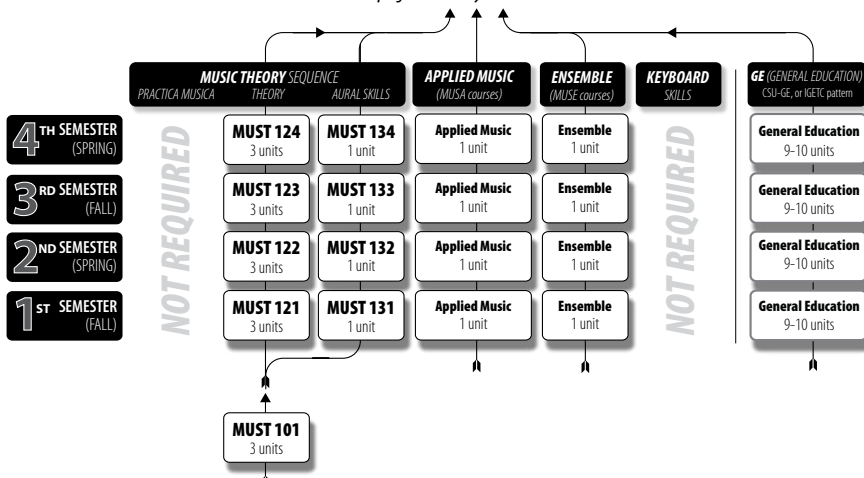
Other Degree Requirements

Students who follow the Associate Degree for Transfer Pathway (CSU Transfer Model Curriculum) are exempt from the Guidance and Activity requirement for degree. Students who follow the Career/Technical Education Pathway or the University Preparation Pathway are not exempt from this requirement.

AA-T: MUSIC 2-YEAR PLAN

Students who satisfy degree requirements for the Associate in Arts for Transfer Degree in Music will be prepared to pursue a bachelor of arts degree in music degrees at California State University Music departments as well as other 4-year academic institutions. The **bachelor of arts degree in music** can lead to careers in **general music and music technology**.

Eligible for AA-T in music, and transfer-prepared for bachelor of arts programs at four-year academic institutions



REPEAT LIMITATIONS ON APPLIED MUSIC AND ENSEMBLE COURSES

The following limitations apply to all activities listed under Applied Music and Ensembles: each activity is limited to a maximum of four enrollments, regardless of the skill level of the individual courses. For example, a student may enroll, a) in beginning piano four times or b) twice in beginning piano and twice in intermediate piano. In either of these cases, the student cannot enroll in any additional piano courses because the maximum of four piano courses has been met. Students who have met the limit of repetition may audit the course by registering in the Community Education Office.

A.A. Degree: Music

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Music will be able to:

1. Demonstrate musical literacy by decoding music notation through their instrument and/or voice.
2. Demonstrate the ability to use basic musical notation.
3. Perform and stylistically interpret music on their applied instrument/voice in an ensemble and/or in a solo setting.
4. Demonstrate an awareness of the scope, variety, structure and form of works in the canon of traditional western art music.

To earn an associate in arts 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. 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 13 **OR**

SATISFACTORY SCORE on music theory placement examination offered during the first meeting of MUST 120 and/or MUST 121. Students who do not meet entrance proficiencies will be encouraged to enroll in MUST 101 or MUST 120 prior to enrollment in MUST 121.

REQUIRED COURSES IN MUSIC THEORY- COMPLETE 20 UNITS

MUST 121	[1]	Music Theory 1.....	3
MUST 131	[1]	Aural Skills 1.....	1
MUST 122	[2]	Music Theory 2.....	3
MUST 132	[2]	Aural Skills 2.....	1
MUST 123	[3]	Music Theory 3.....	3
MUST 133	[3]	Aural Skills 3.....	1
MUST 124	[4]	Music Theory 4.....	3
MUST 134	[4]	Aural Skills 4.....	1
MUST 130	[1234]	Practica Musica (4 times at 1 unit).....	4

ENSEMBLE-COMPLETE 4 UNITS

Any of the following* (repeated individually, or combined with each other to equal the required number of units - see Repeat Limitations above).

MUSE 145	[NP]	Guitar Orchestra.....	1
MUSE 155	[NP]	Concert Choir.....	1
MUSE 161	[NP]	Community Orchestra.....	1
MUSE 165	[NP]	String Orchestra.....	1
MUSE 175	[NP]	Symphonic Band.....	1

APPLIED MUSIC - COMPLETE 4 UNITS

Complete one or more of the courses below appropriate to the student's instrument or voice* (repeat individually, or combined with each other to equal the required number of units - see Repeat Limitations above).

MUSA 121	[NP]	Elementary Piano.....	1
MUSA 122	[NP]	Piano Enrichment.....	1

MUSA 123	[NP]	Intermediate Piano.....	1
MUSA 124	[NP]	Advanced Piano.....	1
MUSA 145	[NP]	Applied Classical Guitar.....	1
MUSA 153	[NP]	Applied Vocal Repertoire 1.....	1
MUSA 154	[NP]	Applied Vocal Repertoire 2.....	1
MUSA 163	[NP]	Applied Music (Violin and Viola).....	1
MUSA 164	[NP]	Applied Music (Cello and Bass).....	1
MUSA 173	[NP]	Applied Music (Brass and Percussion).....	1
MUSA 183	[NP]	Applied Music (Woodwinds).....	1

*Music majors will typically combine ensembles and applied studies according to their primary instrument/voice. Vocalists will enroll in Concert Choir and the appropriate applied voice course. Orchestral instrumentalists will enroll in Community Orchestra and the appropriate applied strings course. Band instrumentalists will enroll in Symphonic Band instrumentalists will enroll in Symphonic Band and/or Jazz Band and applied woodwinds or brass/percussion. Guitarists will enroll in Guitar Orchestra and the appropriate applied guitar class. Students are strongly advised to seek the advice of a music faculty member specializing in his/her primary instrument/voice when choosing ensemble and applied music courses.

PIANO - COMPLETE 2 UNITS**

Any of the following (repeated individually, or combined with each other to equal the required number of units—see Repeat Limitations above)

MUSA 121	[NP]	Elementary Piano.....	1
MUSA 122	[NP]	Piano Enrichment.....	1
MUSA 123	[NP]	Intermediate Piano.....	1
MUSA 124	[NP]	Advanced Piano.....	2

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

TOTAL UNITS IN THE A. A. MAJOR IN 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.....	1
MUSP 153	[NP]	Advanced Musical Theatre Workshop.....	1

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

AA-T: Music (for Transfer)

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

PROGRAMS OFFERED

PROGRAMS IN ARTS, HUMANITIES, & COMMUNICATIONS

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.

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Music will be able to:

1. Demonstrate musical literacy by decoding music notation through their instrument and/or voice.
2. Demonstrate the ability to use basic musical notation.
3. Perform and stylistically interpret music on their applied instrument or voice, in an ensemble and/or in a solo setting.
4. Demonstrate an awareness of the scope, variety, and structure of works in the canon of traditional western art music.

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

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

MUST 121	[NP]	Music Theory 1.....	3
MUST 122	[NP]	Music Theory 2.....	3
MUST 123	[NP]	Music Theory 3.....	3
MUST 124	[NP]	Music Theory 4.....	3
MUST 131	[NP]	Aural Skills 1.....	1
MUST 132	[NP]	Aural Skills 2.....	1
MUST 133	[NP]	Aural Skills 3.....	1
MUST 134	[NP]	Aural Skills 4.....	1

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

MUSA 121	[NP]	Elementary Piano.....	1
MUSA 122	[NP]	Piano Enrichment.....	1
MUSA 123	[NP]	Intermediate Piano.....	1
MUSA 124	[NP]	Advanced Piano.....	2
MUSA 135	[NP]	Elementary Harpsichord.....	1
MUSA 141	[NP]	Elementary Guitar.....	1
MUSA 142	[NP]	Guitar Performance.....	1
MUSA 143	[NP]	Guitar Enrichment.....	1
MUSA 144	[NP]	Intermediate Guitar.....	1
MUSA 145	[NP]	Applied Classical Guitar.....	1
MUSA 151	[NP]	Elementary Voice 1.....	1
MUSA 152	[NP]	Elementary Voice 2.....	1
MUSA 153	[NP]	Applied Vocal Repertoire 1.....	1
MUSA 154	[NP]	Applied Vocal Repertoire 2.....	1

MUSA 155	[NP]	Vocal Master Class.....	1
MUSA 161	[NP]	Elementary Strings.....	1
MUSA 163	[NP]	Applied Music (Violin & Viola).....	1
MUSA 164	[NP]	Applied Music (Cello & Bass).....	1
MUSA 173	[NP]	Applied Music (Brass & Percussion) 1.....	1
MUSA 183	[NP]	Applied Music (Woodwinds).....	1

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

MUSE 145	[NP]	Guitar Orchestra.....	1
MUSE 151	[NP]	Masterworks Chorus.....	1
MUSE 155	[NP]	Concert Choir.....	1
MUSE 156	[NP]	Chamber Choir.....	1
MUSE 161	[NP]	Community Orchestra.....	1
MUSE 165	[NP]	String Orchestra.....	1
MUSE 166	[NP]	Chamber Music (Strings).....	1
MUSE 171	[NP]	Concert Band.....	1
MUSE 175	[NP]	Symphonic Band.....	1
MUSE 176	[NP]	Chamber Music (Band Instruments).....	1
MUSE 181	[NP]	Jazz Band.....	1

IN LIEU OF MUSIC THEORY 1 AND MUSICIANSHIP 1, STUDENT MAY SUBSTITUTE:

MUST 101	MUSIC FUNDAMENTALS.....	3
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TOTAL UNITS REQUIRED IN AA-T MAJOR23-25

Units required for CSU-GE Breadth.....	39
Units required for IGETC/CSU Breadth.....	37-39
CSU Transferable Electives (as needed).....	1-3
Double-Counted Units.....	6

TOTAL UNITS REQUIRED FOR AS-T DEGREE 60

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

MJC Guidance and Activities are not required for the Associate in Arts in Music for Transfer degree.

Photography PROGRAM

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.

A.A. Degree: Photography

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Photography will be able 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 produce original works of art.
4. Make informed assessments of quality and effectiveness in works of art, including their own. Identify and distinguish various historical periods of photography-related art.

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements below. Courses should be selected with the assistance of a Photography faculty advisor. Students who plan to transfer to a four-year college or university should consult with a Photography faculty advisor to ensure that all required transfer courses are completed.

REQUIRED COURSES - COMPLETE 18 UNITS

ART	124	[2]	Color and Design 1	3
ART	168	[1]	Survey of Photography	3
ART	170	[1]	Basic Photography	3
ART	172	[2]	Intermediate Photography	3
ART	173	[3]	Digital Photography	3
ART	175	[3]	Color Photography	3

ELECTIVE COURSES - COMPLETE AT LEAST 2 UNITS

ART	160	[1]	Appreciation of Art	3
ART	163	[NP]	History of Modern Art	3
ART	164	[NP]	History of Art 1	3
ART	165	[NP]	History of Art 2	3
ART	178B	[3]	Advanced Photography	2

MINIMUM UNITS IN AA MAJOR 20

Recording Arts PROGRAM

Skills Recognition Award: Recording Arts

Students who complete the requirements for the Skills Recognition Award in Recording Arts will be able to:

1. Demonstrate effective use of current music technology as applied to recording and music production.
2. Record, mix and master an acoustic music group with multiple tracks and microphones, burn the work to a CD and present the work as a complete project.
3. Demonstrate the ability to select and correctly place microphones for sound capture.
4. Identify elements of sound and acoustics.
5. Create an electronic music composition using music technology and basic music compositional skills.
6. Demonstrate the ability to make a live recording of a musical group or large ensemble.
7. Summarize the evolution of American popular music genres.

REQUIRED COURSES - COMPLETE 11 UNITS

MUSC	111	[1]	Recording Arts 1	2
MUSC	112	[2]	Recording Arts 2	2
MUSC	126	[NP]	Music Production for Multimedia	2
MUSC	121	[3]	Introduction to the Synthesizer and MIDI	2
MUSG	111	[NP]	Introduction to American Popular Music	3

ELECTIVE COURSES - COMPLETE 6 UNITS

MUSC	122	[4]	Electronic Music 2	2
MUST	101	[NP]	Music Fundamentals	3
MUSA	121	[NP]	Elementary Piano	1
MUSG	101	[NP]	Music Appreciation	3
MUSG	112	[NP]	The History of the Beatles	3

TOTAL UNITS FOR SKILLS RECOGNITION AWARD 17

Speech Communication PROGRAM

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

Skills Recognition Award: Speech Communication

EXPECTED STUDENT LEARNING OUTCOMES

Upon successful completion of the Skills Recognition in Speech Communication, students will be able to:

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

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

REQUIRED COURSES - COMPLETE 12 UNITS

ORAL COMMUNICATION AREA - COMPLETE 3 UNITS

SPCOM	100	[NP]	Fundamentals of Public Speaking	3
SPCOM	102	[NP]	Introduction to Human Communication	3
SPCOM	110	[NP]	Persuasion	3

CRITICAL THINKING AREA- COMPLETE 3 UNITS

SPCOM	104	[NP]	Argumentation	3
SPCOM	107	[NP]	Introduction to Debate	3

GROUP AND ORGANIZATIONAL COMMUNICATION AREA- COMPLETE 3 UNITS

SPCOM	106	[NP]	Group & Organizational Communication	3
SPCOM	109	[NP]	Women in Management	3

PROFESSIONAL SKILLS AREA- COMPLETE 3 UNITS

SPCOM	103	[NP]	Interpersonal Communication	3
SPCOM	130	[NP]	Intercultural Communication	3

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

PROGRAMS OFFERED

A.A. Degree: **Speech Communication**

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Speech Communication will be able to:

1. *Construct a speech outline demonstrating clarity of ideas, proper source citation, awareness of audience, and proper outlining techniques.*
2. *Identify and apply principles of interpersonal communication theory to build functional relationships.*
3. *Find, evaluate, and incorporate research materials into written and oral argumentation, as well as cite sources correctly.*
4. *Adequately debate others, present platform speeches, or perform works of literature in a classroom or outside venue.*

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. Student should consult with a Speech advisor for selection of elective units.

REQUIRED COURSES - COMPLETE 6 UNITS

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

ELECTIVE COURSES - COMPLETE 14 UNITS

SPCOM 101	[NP]	Voice and Articulation.....	3
SPCOM 103	[NP]	Interpersonal Communication.....	3
SPCOM 105	[NP]	Forensics Debate.....	2
SPCOM 106	[NP]	Group & Organizational Communication.....	3
SPCOM 107	[1]	Introduction to Debate.....	3
SPCOM 109	[NP]	Women in Management.....	3
SPCOM 110	[NP]	Persuasion.....	3
SPCOM 115	[MP]	Forensics Platform Speeches.....	2
SPCOM 120	[NP]	Oral Reading / Interpretation.....	3
SPCOM 122	[1]	Introduction to Readers' Theatre.....	3
SPCOM 123	[NP]	Storytelling.....	3
SPCOM 124	[2]	Advanced Readers' Theatre.....	3
SPCOM 125	[NP]	Forensics Interpretation Events.....	2
SPCOM 130	[NP]	Intercultural Communication.....	3
SPCOM 135	[NP]	Forensics Limited Preparation Events.....	2
SPCOM 145	[NP]	Parliamentary Procedure.....	1
SPCOM 199	[NP]	Independent Study.....	1-3

MINIMUM UNITS IN A.A. MAJOR 20

Theatre PROGRAM

The Theatre Program at MJC is designed to prepare students to work in professional or semi-professional theatre situations or to transfer to four-year colleges and universities to pursue additional drama classes that may include preparation for teaching theatre. The program is designed to teach students the techniques of acting, costuming, directing, playwrighting, lighting, makeup, oral interpretation, stage design, and children's theatre. The Theatre program provides students the opportunity to act in major productions.

Skills Recognition Award: Design & Technical Theatre

EXPECTED STUDENT LEARNING OUTCOMES

Students who complete the requirements for the Skills Recognition Award in Design and Technical Theatre will be able to:

1. *Describe how theatre artists collaborate in order to create a theatrical production.*
2. *Analyze a script in terms of themes, place, time period, style, plot, genre and mood as applied to scenery, costume and lighting planning and design.*
3. *Demonstrate how to safely use common lighting instruments and accessories in the course of lighting a dance concert or play.*
4. *Demonstrate the ability to draw a basic makeup design for a face.*
5. *Demonstrate knowledge of stage and shop safety rules and safe working practices in an applied situation.*
6. *Demonstrate the ability to organize the necessary paperwork and schedule to prepare and run rehearsals and performances.*

- 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 17 UNITS

THETR 100	[NP]	Introduction to Theatre Arts.....	3
THETR 175	[1]	Stage Costuming.....	3
THETR 178	[2]	Introduction to Scenery Design.....	3
THETR 182	[1]	Practical Stage Lighting.....	3
THETR 174	[NP]	Stage Makeup.....	3
THETR 190A	[NP]	Theatre Production Workshop.....	1
THETR 196	[NP]	Theatre Management.....	1

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

Skills Recognition Award: Theatre Performance

EXPECTED STUDENT LEARNING OUTCOMES

Students who complete the requirements for the Skills Recognition Award in Theatre Performance will be able 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

THETR 160	[1]	Fundamentals of Acting.....	3
THETR 161	[2]	Intermediate Acting.....	3

ELECTIVE COURSES - COMPLETE 9 UNITS

THETR 122	[1]	Introduction to Readers' Theatre.....	3
THETR 123	[NP]	Storytelling.....	3
THETR 124	[2]	Advanced Readers' Theatre.....	3
THETR 131	[NP]	Fundamentals of Choreography.....	3
THETR 195	[NP]	Movement for the Performing Artist.....	3

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

A.A. Degree: Theatre

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Theatre will be able to:

- Demonstrate knowledge of theatre from a historical perspective.
- Synthesize and apply information on contemporary trends and technologies in theatre.
- Analyze a theatrical text.
- Research and analyze the directing of other directors.
- Demonstrate knowledge of theatrical protocol.
- Demonstrate understanding of the collaborative nature of theatre.
- Demonstrate the process required to prepare a resume, audition piece, or portfolio.
- Practice commitment and self-discipline required for success in theatre.
- Employ initiative and leadership qualities in individual development and growth.
- Express creativity in the artistic process.

MAJOR 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. 100) or the University Preparation Pathway (p. 97) 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 8 UNITS

THETR 100	[1]	Introduction to Theatre Arts.....	3
THETR 160	[1]	Fundamentals of Acting.....	3
THETR 190B	[2]	Theatre Production Workshop.....	2

ELECTIVE COURSES: GENERAL - COMPLETE 10 UNITS

THETR 105	[NP]	Introduction to Stagecraft.....	3
THETR 122	[1]	Introduction to Readers' Theatre.....	3
THETR 123	[3]	Storytelling.....	3
THETR 124	[2]	Advanced Readers' Theatre.....	3
THETR 131	[NP]	Fundamentals of Choreography.....	2
THETR 156	[NP]	Rehearsal and Performance in Comedy.....	2
THETR 157	[NP]	Rehearsal and Performance in Drama.....	2
THETR 158	[NP]	Rehearsal and Performance in Classical Theatre.....	2
THETR 159	[NP]	Rehearsal and Performance in Musical Theatre.....	2
THETR 161	[2]	Intermediate Acting.....	3
THETR 164	[NP]	Improvitational Acting.....	3
THETR 174	[NP]	Stage Makeup.....	3
THETR 175	[NP]	Stage Costuming.....	3
THETR 177	[NP]	Ballet 2.....	1
THETR 178	[3]	Introduction to Scenery Design.....	3

THETR 181	[NP]	Jazz 2.....	1
THETR 182	[3]	Practical Stage Lighting.....	3
THETR 190A	[NP]	Theatre Production Workshop.....	1
THETR 192	[NP]	Rehearsal and Performance.....	2
THETR 194	[NP]	Introduction to World Dance.....	3
THETR 196	[NP]	Theatre Management.....	1
THETR 198	[NP]	Special Topics.....	1-3

ELECTIVE COURSES: MOVEMENT - COMPLETE 2 UNITS

THETR 177	[NP]	Ballet 2.....	1
THETR 129	[NP]	Jazz 2.....	1
THETR 170X,A	[NP]	Hip Hop.....	½, 1
THETR 185	[NP]	Modern Dance 1.....	1
THETR 186	[NP]	Modern Dance 2.....	1
THETR 187	[NP]	Modern Dance 3.....	½, 1
THETR 188	[NP]	Jazz 1.....	1
THETR 189	[NP]	Ballet 1.....	1
THETR 195	[NP]	Movement for the Performing Artist.....	3

MINIMUM UNITS IN A.A. MAJOR 20

A.A.-T. Degree: Theatre Arts (for Transfer)

ABOUT THIS DEGREE

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 theatre 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.

The Associate in Arts in Theatre Arts for Transfer degree (AA-T) prepares students to transfer into the CSU system leading to a baccalaureate degree in Theatre Arts which can lead to careers in teaching, design, technical theatre, theatre management, professional performance, stage direction, stage management, etc. Please consult a counselor regarding specific course requirements for the transfer institution. Completion of the Associate in arts in Theatre Arts for Transfer degree also provides guaranteed admission with junior status to the CSU system. Upon completion of the Associate in arts in Theatre Arts for Transfer students will understand and be able to demonstrate the fundamental performance and technical production processes for the Theatre Arts, demonstrate knowledge of the historical and cultural dimensions of theatre and understand the interaction between script, actor and audience and the areas of scenery, lighting, sound and costume.

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

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Theatre Arts for Transfer degree will be able to:

- Demonstrate knowledge of theatre from an historical perspective.
- Demonstrate an understanding of time management, commitment, follow-through, and responsibility to achieve a common goal.
- Creatively analyze, critique, and interpret works of theatrical art.
- Demonstrate an understanding of and empathy for racial, ethnic and cultural diversity of U.S. and world theatre.
- Express creativity in the artistic process

PROGRAMS IN **ARTS, HUMANITIES, & COMMUNICATIONS**

THE FOLLOWING IS REQUIRED FOR THE ASSOCIATE IN ARTS IN THEATRE ARTS FOR TRANSFER:

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

REQUIRED CORE: (9 UNITS)

THETR 100	[NP]	Introduction to Theatre Arts	3 AND
THETR 160	[NP]	Fundamentals of Acting	3 AND
THETR 156	[NP]	Rehearsal and Performance in Comedy*	2
THETR 157	[NP]	Rehearsal and Performance in Drama*	2
THETR 158	[NP]	Rehearsal and Performance in Classical Theatre*	2
THETR 159	[NP]	Rehearsal and Performance in Musical Theatre	2 OR
THETR 190AB	[NP]	Theatre Production Workshop*	1-2

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

LIST A: (9 UNITS)

THETR 105	[NP]	Introduction to Stagecraft	3
THETR 161	[NP]	Intermediate Acting	3
THETR 174	[NP]	Stage Makeup	3
THETR 175	[NP]	Stage Costuming	3
THETR 178	[NP]	Introduction to Scenery Design	3
THETR 182	[NP]	Practical Stage Lighting	3
THETR 156	[NP]	Rehearsal and Performance in Comedy*	2
THETR 157	[NP]	Rehearsal and Performance in Drama*	2
THETR 158	[NP]	Rehearsal and Performance in Classical Theatre*	2
THETR 159	[NP]	Rehearsal and Performance in Musical Theatre	2 OR
THETR 190AB	[NP]	Theatre Production Workshop*	1-2

***REHEARSAL AND PERFORMANCE (MAXIMUM 3 UNITS) (IF NOT USED FOR CORE)**

THETR 190AB	[NP]	Theatre Production Workshop	1-2
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TOTAL UNITS REQUIRED IN AS-T MAJOR 18

Units required for CSU-GE Breadth	39
Units required for IGETC/CSU Breadth	37-39
CSU Transferable Electives (as needed)	9-11
Double-Counted Units	6

TOTAL UNITS REQUIRED FOR AS-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.

Behavioral & Social Sciences

DEGREES, CERTIFICATES, & SKILLS RECOGNITIONS

Cecelia Hudelson, Dean

East Campus
Founders Hall 100
(209) 575-6129

INSTRUCTION IN:

Anthropology (ANTHR)
Economics (ECON)
Geography (GEOG)
Gerontology (GERON)
Human Services (HUMSR)
Interdisciplinary Studies (INDIS)
History (HIST)
Philosophy (PHILO)
Political Science (POLSC)
Psychology (PSYCH)
Social Science (SOCSC)

AWARDS IN:

Administration of Justice, AS, AS-T
Chemical Dependency Counseling AA
Human Services, AA, C
Gerontology, SR
Ethnic Studies, SR
Geography, UPAA
Liberal Studies, UPAA
Psychosocial Rehabilitation, SR
Supervisory Management in Public Safety, SR

SUPPORT STAFF

Rhonda Campbell, Administrative Secretary
Mandy Landis, Administrative Technician

INSTRUCTIONAL SUPPORT STAFF

Ranai Carlton, Inst. Support Technician
Todd Mathias, Instructional Support Aide
Sampao Murphy, Inst. Support Assistant
Wendy Towers, Program Technician
Adam Bava, Inst. Support Assistant

Administration of Justice PROGRAM

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

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

All courses are open to individuals who have been admitted to the college and who meet the prerequisites, unless specifically exempted by statute. Courses which involve the handling of firearms, mace, or baton are not open to individuals who have been convicted of a felony or who are mental patients. (Penal Code Section 12021 firearms, 12403.7 chemical agents, 12020 batons, and Welfare and Institutions Code 8100-01-02-03.)

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

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

AS-T Degree: Administration of Justice (for Transfer)

ABOUT THIS AWARD

Modesto Junior College offers a comprehensive Administration of Justice program. The curriculum addresses basic knowledge and skills required in the criminal justice area. The Associate in science in Administration of Justice for Transfer degree is designed to prepare candidates for transfer to a California State University offering a major in administration of justice/criminal justice. Course work is offered evidence, community relations corrections and law. Some potential careers are in the Administration of Justice field Correctional Officer, 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.

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate in science Degree in Administration of Justice for Transfer will be able 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:

1. 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.
2. Completion of 60 semester CSU-transferable units using the CSU GE Breadth or the IGETC pattern.
3. Exactly 60 semester units are required for the degree.

REQUIRED CORE: (6 UNITS)

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

LIST A: TWO COURSES (6 UNITS)

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

LIST B: TWO COURSES (MINIMUM OF 6 UNITS)

SOCIO 101	[NP]	Introduction to Sociology	3
MATH 134	[NP]	Mathematical Ideas and Applications	5
PSYCH 101	[NP]	General Psychology	3
ADJU 145C	[NP]	Community Agency Fieldwork	3
ADJU 205	[NP]	Community Relations	3
ADJU 210	[NP]	Communications in Criminal Justice	3
ADJU 213	[NP]	Patrol Procedures	3
ADJU 217	[NP]	Substance Abuse	3
ADJU 222	[NP]	Profiling Terrorism	3
ADJU 234	[NP]	Crime Causation	3
ADJU 243	[NP]	Domestic Violence Crisis Intervention	3

TOTAL UNITS REQUIRED IN AS-T MAJOR 18-20

Units required for CSU-GE Breadth	39
Units required for IGETC/CSU Breadth	37-39
CSU Transferable Electives (as needed)	15-17
Double-Counted Units	12

TOTAL UNITS REQUIRED FOR AS-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

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate in science Degree in Administration of Justice will be able to:

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

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements below. Associate in Science degree candidates may select an option in either Law Enforcement (police, sheriff, etc.) or Corrections (prison, parole, probation, etc.).

REQUIRED COURSES - COMPLETE 18 UNITS

ADJU 201	[1]	Introduction to Administration of Justice.....	3
ADJU 202	[2]	Prin. and Proc. of the Justice System	3
ADJU 203	[3]	Concepts of Criminal Law	3
ADJU 204	[3]	Legal Aspects of Evidence	3
ADJU 205	[1]	Community Relations.....	3
ADJU 212	[4]	Criminal Investigation	3

ELECTIVE COURSES - COMPLETE 12 UNITS

ADJU 144	[NP]	Community Agency Service.....	1
ADJU 145A-D	[NP]	Community Agency Practicum	1,2,3,4
ADJU 210	[4]	Communication in Criminal Justice	3
ADJU 213	[1]	Patrol Procedures	3
ADJU 215	[1]	Introduction to Firearms	1½
ADJU 216	[NP]	Firearms & Range Application.....	1½
ADJU 217	[2]	Substance Abuse	3
ADJU 222	[NP]	Profiling Terrorism.....	3
ADJU 232	[2]	Juvenile Justice Procedures.....	3
ADJU 234	[3]	Crime Causation	3
ADJU 235	[1]	Introduction to Corrections.....	3
ADJU 236	[2]	Correctional Law	3
ADJU 243	[NP]	Domestic Violence Crisis Intervention.....	3
ADJU 351	[NP]	Elements of Supervision in Public Safety.....	3

MINIMUM UNITS IN A.S. MAJOR 30

**Skills Recognition Award:
Supervisory Management in Public Safety**

Students who earn a Certificate of Achievement in Supervisory Management in Public Safety will be able 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.
5. Hearing no objections, the committee was notified of the proposed Program Learning Outcomes.

• 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]	Organizational Communication	3
SUPR 364	[NP]	Total Quality Management.....	3
BUSAD 274	[NP]	Human Resources Management.....	3

TOTAL UNITS FOR SKILLS RECOGNITION 12

**Chemical Dependency
Counseling PROGRAM**

**A.A. Degree:
Chemical Dependency Counseling**

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Chemical Dependency Counseling will be able 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. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 23 UNITS

HUMSR 101	[1]	Introduction to Human Services	3
HUMSR 111	[2]	Counseling in Chemical Dependency	3
HUMSR 116	[1]	Drugs and Alcohol in Society	3
HUMSR 117	[3]	Intervention, Treatment Strategies in Chemical Dependency	3
HUMSR 118	[3]	Pharmacology of Abused Substances.....	3
HUMSR 120	[4]	Professional Development in the Helping Professions.....	3
HUMSR 144	[3]	Community Agency Practicum Discussion.....	1
HUMSR 145ABD	[NP]	Community Agency Practicum	1,2,4

MINIMUM UNITS IN A.A. MAJOR 23

**Gerontology
PROGRAM**

Skills Recognition: Gerontology

Completion of the Gerontology program will provide the holder with the skills, knowledge, and education necessary to work with the elderly. It also provides training and growth opportunities for existing human service employees. In addition, this Skills Recognition Award in Gerontology will serve as another step in an educational and career ladder leading to a Human Services Skills Recognition Award, certificate and or degree. All course work will be applicable as electives and/or meet the requirements for the Human Services degrees at MJC.

PROGRAMS OFFERED

PROGRAMS IN **BEHAVIORAL & SOCIAL SCIENCES**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Certificate of Achievement in Gerontology, students will be able to

1. Demonstrate an understanding of gerontology, family systems, and the psychology of aging as it relates to individual, family, and group counseling.
2. Exhibit effective, communication, clinical skills, body language, and written abilities with the elderly
3. Demonstrate an understanding of theoretical philosophies, biology, life span, environmental or psychosocial stressors, and the relation to gerontological counseling.
4. Conduct a basic assessment, interview, intervention, case plan, individual counseling, and group session with the aged.

PROGRAM REQUIREMENTS

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

REQUIRED COURSES: COMPLETE 9 UNITS

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 9

Ethnic Studies PROGRAM

Skills Recognition Award: Ethnic Studies

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Certificate of Achievement in Gerontology, students will be able to:

1. Understand how race and ethnic relations have been shaped by economic, social, cultural, and political realities.
2. Demonstrate familiarity with various methodological approaches to the terrains of race and ethnicity, especially in their relation to identity, inequality, culture, and history.

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

REQUIRED COURSES – COMPLETE 6 UNITS

ANTHR 102	[NP]	Cultural Anthropology.....	3
HIST 107	[NP]	World Civilization from the 16th Century.....	3
SPCOM 130	[NP]	Intercultural Communication.....	3

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

I. INTERNATIONAL STUDIES OPTION:

A. EXAMINING CULTURE THROUGH THE ARTS AND LITERATURE: COMPLETE 3 UNITS

ART 169	[NP]	History of Non-Western Art.....	3
ENGL 131	[NP]	Introduction to World Literature to 1500.....	3
ENGL 132	[NP]	Introduction to World Lit. from 1500 to Present.....	3
ENGL 151	[NP]	Folklore.....	3
ENGL 173	[NP]	Introduction to Latin American Literature.....	3
HUMAN 110	[NP]	East Meets West.....	3
MUSIC 169	[NP]	Introduction to World Music.....	3
THETR 102	[NP]	World Theater.....	3

THETR/PE 194	[NP]	World Dance.....	3
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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
POLSC 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
SOCSC 105	[NP]	Women's Studies.....	3

II. DOMESTIC STUDIES OPTION

A. EXAMINING CULTURE THROUGH ARTS AND LITERATURE – COMPLETE 3 UNITS

ENGL 171	[NP]	Introduction to African American Literature.....	3
ENGL 172	[NP]	Introduction to Chicano Literature.....	3
ENGL 179	[NP]	Intro to Native American Lit, Mythology, and the Oral Tradition.....	3
HUMAN 120	[NP]	Culture, Diversity, & Tolerance in the Arts.....	3
SPAN 112	[NP]	Introduction to Chicano/a Literature.....	3

B. EXAMINING HISTORICAL AND POLITICAL PERSPECTIVES - COMPLETE 3 UNITS

HIST 113	[NP]	Social & Cultural Hist of the U.S prior to the 20th Century.....	3
HIST 119	[NP]	Social & Cultural Hist. of 20th Century America.....	3
HIST 128	[NP]	History of the American Far Western Frontier.....	3
HIST 154	[NP]	African Americans through the 19th Century.....	3
HIST 155	[NP]	African Americans through the 20th & 21st Century.....	3

C. EXPLORING CULTURAL AND SOCIOLOGICAL ISSUES - COMPLETE 3 UNITS

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

TOTAL UNITS FOR SKILLS RECOGNITION 15

Geography PROGRAM

A.A. Degree: University Preparation, Emphasis in **Geography**

ABOUT THIS EMPHASIS

Geography is the study of global patterns created through Earth processes and human behaviors. Geographers utilize a unique holistic approach which examines interrelationships found within the culture, economics, politics, history, and physical environment of specific geographical regions.

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Geography will be able to:

1. Describe and demonstrate the methodology and approach used in geographical study
2. Describe and select examples from maps to validate geographical processes and relationships
3. Critically examine geographic locations based upon physical, cultural, historical, political and economic factors

EMPHASIS REQUIREMENTS

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

REQUIRED COURSES – COMPLETE 9 UNITS

GEOG 101	[NP]	Physical Geography.....	3
GEOG 102	[NP]	Cultural Geography.....	3
GEOG 105	[NP]	Economic Geography.....	3

ELECTIVE COURSES – COMPLETE 9 UNITS

Please refer to www.assist.org for your chosen transfer university and specific major, and use that information to select three courses from the following list of electives. Please see your instructor to help you determine which courses may be most appropriate based upon your intended focus of study within the discipline and transfer institution. Additional courses may be required by your transfer university.

ECON 101	[NP]	Economic Principles: Macroeconomics.....	3 OR
ECON 102	[NP]	Principles of Microeconomics.....	3
GEOG 104	[NP]	California Geography.....	3 OR
GEOG 109*	[NP]	Introduction to Geographic Information Systems.....	3 OR
GEOG 110	[NP]	World Regional Geography.....	3
HIST 104	[NP]	Western Civilizations.....	3
HIST 105	[NP]	Western Civilization.....	3
HIST 125	[NP]	History of Mexico.....	3
HIST 129	[NP]	History of California.....	3
HIST 145	[NP]	History Of Latin America.....	3
POLSC 110	[NP]	International Relations.....	3
POLSC 111	[NP]	War and Peace: from Lenin to Al Qaeda.....	3
POLSC 140	[NP]	Comparative Politics.....	3

UNITS REQUIRED IN AREA OF EMPHASIS 18

Human Services PROGRAM

Certificate of Achievement: **Human Services**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Human Services, students will be able 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

HUMSR 103	[1]	Introduction to Human Service Careers.....	½
GUIDE 110	[1]	Educational Planning.....	½
HUMSR 101	[1]	Introduction to Human Services.....	3
HUMSR 110	[1]	Introduction to Interviewing, Counseling.....	3
SOCIO 102	[1]	Social Problems in the United States.....	3
HUMSR 116	[1]	Drugs and Alcohol in Society.....	3
HUMSR 120	[2]	Professional Development in the Helping Professions.....	3
SOCIO 150	[2]	Ethnicity and Culture in America.....	3 OR
SOCIO 156	[2]	Mexican Culture in the United States.....	3
SOCIO 125	[2]	Sociology of the Family.....	3
HUMSR 144	[NP]	Community Agency Practicum Discussion.....	1
HUMSR 145ABD	[NP]	Community Agency Practicum.....	1,2,4
PSYCH 110	[2]	Human Sexual Behavior.....	3 OR
PSYCH 130	[2]	Personal Adjustment.....	3 OR
PSYCH 141	[2]	Human Life Span.....	3

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

A.A. Degree: **Human Services**

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Human Services will be able 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.

PROGRAMS IN **BEHAVIORAL & SOCIAL SCIENCES**

To earn an associate in arts 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.

REQUIRED COURSES - COMPLETE 17 UNITS

HUMSR 101	[1]	Introduction to Human Services	3
HUMSR 110	[2]	Introduction to Interviewing, Counseling	3
HUMSR 114	[NP]	Death and Dying.....	3
HUMSR 144	[NP]	Community Agency Practicum Discussion	1
HUMSR 145ABD	[NP]	Community Agency Practicum	1,2,4
HUMSR 116	[1]	Drugs and Alcohol in Society	3
SOCIO 150	[NP]	Minorities in America	3 OR
SOCIO 156	[NP]	Mexican Culture in the United States	3

ELECTIVE COURSES - COMPLETE 3 UNITS

ANTHR 102	[2]	Cultural Anthropology.....	3
HUMSR 103	[NP]	Introduction to Human Service Careers	½
HUMSR 113	[NP]	Co-Occurring Disorders	3
HUMSR 119	[NP]	Introduction to Group Leadership & Group Process	3
HUMSR 120	[NP]	Professional Devt. in the Helping Professions.....	3
POLSC 120	[4]	California Politics and Problems.....	3
PSYCH 51	[1]	Psychology in Everyday Life	3 OR
PSYCH 101	[1]	General Psychology	3
PSYCH 104	[3]	Social Psychology	3
PSYCH 110	[2]	Human Sexual Behavior	3
SOCIO 101	[1]	Introduction to Sociology.....	3
SOCIO 125	[3]	Sociology of the Family	3

MINIMUM UNITS IN A.A. MAJOR 20

Liberal Studies PROGRAM

A.A. Degree: University Preparation, Emphasis in Liberal Studies (Teacher Education at CSU Stanislaus)

ABOUT THIS EMPHASIS

This emphasis is especially designed for students who plan to transfer into California State University, Stanislaus, Liberal Studies major or into their Blended Teacher Preparation Program. It is designed for students interested in teaching in public and private elementary schools. The program provides a broad overview of the fields of natural science, social sciences, humanities, composition, mathematics, and critical thinking in order to prepare the future teacher for the standards-based curriculum required in public schools. Further education at the university level will be required to fulfill all requirements for a teaching credential authorizing service in California public schools.

Note to students: If you are interested in transferring to a four-year college or university other than CSU Stanislaus to pursue a bachelor's degree in this major, it is critical that you meet with a Modesto Junior College counselor and/or refer to the ASSIST website (www.assist.org) to select and plan the courses for your major. Schools vary widely in terms of the required preparation for this major. The courses that MJC requires for this Area of Emphasis may be different from the preparation requirements needed for the Bachelor's degree at a different university.

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities associated with the University Preparation Pathway requirements, students who complete the Associate's Degree Emphasis in Liberal Studies will be able to:

1. Demonstrate competence in the fields of study central to the California state standards for the sciences, mathematics, visual and performing arts, the social sciences, and language and literature.
2. Define and explain the fundamental concepts of educational pedagogy including motivational theories, learning styles, and curriculum development through reflections on their coursework and classroom observations.

1. 60 UNITS -COMPLETE 60 UNITS NUMBERED 100-299

2. GPA - EARN AN OVERALL GPA OF 2.0 OR HIGHER BASED ON ALL COURSEWORK ATTEMPTED IN COLLEGE COURSES NUMBERED 50-399

3. GUIDANCE REQUIREMENT- Complete ONE of the following courses to fulfill the guidance requirement for Associate Degree:

GUIDE 109	[NP]	International Student/New American Focus	1
GUIDE 110	[NP]	Educational Planning	½
GUIDE 111	[NP]	Career Awareness	1
GUIDE 112	[NP]	Job Hunting Skills.....	½
GUIDE 116	[NP]	Orientation for Re-Entry Adults	2
GUIDE 120	[NP]	Success Strategies for Transfer Students	3

4. ACTIVITIES REQUIREMENT- fulfill the activities requirement for associate degree.

Complete ONE of the following courses

(Double-counts with Area C.1 below)

ART 102	[NP]	Introduction to Computer Graphics.....	3
CMPGR 202	[NP]	Introduction to Computer Graphics.....	3

5. GENERAL EDUCATION REQUIREMENT - Fulfill the general education requirement for associate degree by completing the CSU-GE Transfer Pattern as specified below with a C or better in each course.

CSU-GE: AREA A
Communication in the English Language and Critical Thinking

AREA A.1 – COMPLETE ONE OF THE FOLLOWING COURSES:

SPCOM 100	[NP]	Fundamentals of Public Speaking.....	3
SPCOM 102	[NP]	Introduction to Human Communication.....	3

AREA A.2 – COMPLETE THE FOLLOWING COURSE:

ENGL 101	[NP]	Composition and Reading.....	3
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AREA A.3 – COMPLETE ONE OF THE FOLLOWING COURSES:

CMPSC 103	[NP]	Symbolic Logic.....	3
ENGL 103	[NP]	Advanced Composition and Critical Thinking.....	3
PHILO 103	[NP]	Symbolic Logic.....	3
PHILO 105	[NP]	Reasoning.....	3
PHILO 107	[NP]	Philosophy of Science.....	3
SPCOM 104	[NP]	Argumentation.....	3
SPCOM 107	[NP]	Introduction to Debate.....	3

CSU-GE: AREA B
Physical Universe, its Life Forms & Mathematical Concepts

AREA B.1 – COMPLETE THE FOLLOWING COURSE:

EASCI 161	[NP]	Earth Science.....	4
			(Double-counts for Area of Emphasis below)

AREA B.2 – COMPLETE THE FOLLOWING COURSE:

BIO 111	[NP]	General Biology.....	4
			(Double-counts for Area of Emphasis below)

AREA B.3 –

(FULFILLED THROUGH SATISFACTORY COMPLETION OF AREAS B.1 AND B.2)

AREA B.4 – COMPLETE THE FOLLOWING COURSE:

MATH 105	[NP]	Structure of Mathematics 1.....	4
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CSU-GE: AREA C
Arts, Literature, Philosophy, and Foreign Language

AREA C.1 – MET WITH FULFILLMENT OF MJC ACTIVITIES REQUIREMENT ABOVE

AREA C.2 – COMPLETE ONE OF THE FOLLOWING COURSES:

ENGL 169	[NP]	Children’s Literature (preferred by CSU Stanislaus).....	3
ENGL 168	[NP]	Adolescent Literature.....	3

AREA C.3 – COMPLETE ONE OF THE FOLLOWING COURSES:

HUMAN 101	[NP]	Introduction to the Humanities.....	3
HUMAN 105	[NP]	Early Humanistic Traditions.....	3
HUMAN 106	[NP]	Humanities in the Modern World.....	3
HUMAN 110	[NP]	East Meets West.....	3
MUSG 101	[NP]	Music Appreciation (preferred by CSU Stanislaus).....	3
MUSG 121	[NP]	History of Western Music 1.....	3
MUSG 122	[NP]	History Western Music 2.....	3
MUSG 111	[NP]	Introduction to American Popular Music.....	3
MUSG 102	[NP]	Introduction to World Music.....	3
PHILO 101	[NP]	Philosophy.....	3

PHILO 111	[NP]	Ethics: Theory and Application.....	3
PHILO 115	[NP]	Religion: A Philosophical and Comparative Inquiry.....	3
PHILO 121	[NP]	History of Philosophy: Modern.....	3
PHILO 123	[NP]	20th Century Philosophy.....	3
PHILO 140	[NP]	Philosophy and Film.....	3

CSU-GE: AREA D
Social, Political, and Economic Institutions and Behavior

AREA D – COMPLETE THREE COURSES, ONE FROM EACH AREA:

CSU-GE AREA D.1 – COMPLETE THE FOLLOWING COURSE

HIST 101	[NP]	History of the U to 1877.....	3
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CSU-GE AREA D.2 - COMPLETE ONE COURSE

HIST 102	[NP]	History of the U.S. post Civil War.....	3
POLSC 101	[NP]	American Politics.....	3

CSU-GE AREA D.3 - COMPLETE ONE COURSE

GEOG 102	[NP]	Cultural Geography.....	3
GEOG 105	[NP]	Economic Geography.....	3
GEOG 110	[NP]	World Regional Geography.....	3

CSU-GE AREA E. - COMPLETE ONE OF THE FOLLOWING COURSES

PSYCH 141	[NP]	Human Lifespan.....	3
CLDDV 103	[NP]	Child Growth and Development.....	3

(TOTAL UNITS REQUIRED TO FULFILL GENERAL EDUCATION 42 ½- 45)

6. COMPLETE THE LIBERAL STUDIES EMPHASIS - Complete the required and elective courses for the AREA OF EMPHASIS IN LIBERAL STUDIES with a C or better in each course.

REQUIRED COURSES – COMPLETE 16 UNITS

SOCSC 109	[NP]	Intro to Education – Practicum.....	2
SOCSC 110	[NP]	Intro to Education –.....	3
BIO 111	[NP]	Biology (Double-counts with Area B.2).....	4
EASCI 161	[NP]	Earth Science (Double-counts with Area B.1).....	4
HIST 106	[NP]	History.....	3

ELECTIVE COURSES – COMPLETE ONE COURSE

CMPSC 201	[NP]	General Computer Literacy.....	3
CMPSC 203	[NP]	Technical Computer Literacy.....	3
HIST 129	[NP]	History of California.....	3
MATH 106	[NP]	Structure of Mathematics 2.....	4

UNITS IN AREA OF EMPHASIS.....19-20

PROGRAMS OFFERED

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 certificate of achievement and/or degree. All coursework will be applicable as electives and/or meet the requirements for the Human Services degrees at MJC.

Skills Recognition Award: 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 MJC.

EXPECTED STUDENT LEARNING OUTCOMES

Upon satisfactory completion of this program, the student will be able to:

1. *Analyze the impact of stigma, culture, and various practice models in psychosocial rehabilitation.*
2. *Examine and describe psychosocial rehabilitation, family systems, and historical perspectives as it relates to the public mental health movement.*
3. *Describe and demonstrate effective communication, body language, and written abilities with children, consumers, or families.*
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

HUMSR 142	Introduction to Psychosocial Rehabilitation	3
HUMSR 143	Psychosocial Rehabilitation Practice	3
HUMSR 144	Community Agency Practicum Discussion	1
HUMSR 145ABD	Community Agency Practicum	1 - 4
HUMSR 146	Psychosocial Rehabilitation with Children/Families	3

TOTAL UNITS **9**

Business

DEGREES, CERTIFICATES, & SKILLS RECOGNITIONS

PROGRAMS OFFERED

Cecelia Hudelson, Dean

East Campus
 Founders Hall 100
 (209) 575-6129

INSTRUCTION IN:

Accounting (BUSAD)
 Bookkeeping (BUSAD)
 Business Administration (BUSAD)
 Clerical (BUSAD)
 Computer Graphics (CMPGR)
 Computer Science (CMPSC)
 Marketing (BUSAD)
 Office Administration (OFADM)
 Real Estate (RLES)

AWARDS IN:

Accounting, AS, C	Computer Programming Specialist, C	Professional Selling, C
Accounting Clerk, C	Computer Science, AS, AA	Records Management/ Data-Entry Specialist, C
Bookkeeping, AS, AA, C	International Business, C	Real Estate, AS, AA, C
Business Administration, AS, AS-T	Marketing, AS, AA	Retail Management, SR
Business Operations, AS, AA	Network Administration, C	Supervisory Management, AS, AA, C
Clerical, AS, C	Network Technician, C	Word Processing, C
Computer Applications Specialist, C	Office Administration, C	Administration of Justice, AS, AA
Computer Graphics Applications, AS, C	Office Computer Applications, C	Ethnic Studies, SR
Computer Information Systems, AA	Office Support, C	Supervisory Management in Public Safety, SR

SUPPORT STAFF

Rhonda Campbell, Administrative Secretary
 Mandy Landis, Administrative Technician

INSTRUCTIONAL SUPPORT STAFF

Ranai Carlton, Inst. Support Technician
 Todd Mathias, Instructional Support Aide
 Sampao Murphy, Instructional Support Assistant
 Wendy Towers, Program Technician
 Adam Bava, Instructional Support Assistant

Accounting PROGRAM

The Accounting program is an intensive study of accounting theory as it applies to business and industry today. Accounting is a vital element of business. Accountants record the way business has grown and, after analyzing the figures, recommend its future direction. 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. Accounting courses are taught during the day and evening to allow students who work the opportunity to attend classes.

Certificate of Achievement: Accounting Clerk

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Accounting Clerk at Modesto Junior College, students will be able to:

1. Prepare basic financial statements
2. Demonstrate the ability to perform general office procedures
3. Utilize technology to perform general office and bookkeeping procedures

REQUIRED COURSES - COMPLETE 14½ UNITS

OFADM 301	[1]	Beginning Keyboarding	1½ OR
OFADM 303	[1]	Skillbuilding for Speed and Accuracy	½
OFADM 356	[1]	Introduction to Word Processing	1
OFADM 359	[2]	Introduction to Spreadsheets	1
OFADM 314	[2]	Office Procedures and Technologies	3
BUSAD 310	[1]	Bookkeeping 1	3
BUSAD 331	[1]	Beginning Computer Accounting Software	1
BUSAD 332	[2]	Intermediate Computer Accounting Software	1
BUSAD 300	[2]	Machine Calculation	2 OR
OFADM 375	[2]	10-Key on the Computer	1
BUSAD 50	[1]	Business Mathematics	3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT.....14½

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.

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Accounting at Modesto Junior College, students will be able to:

1. Demonstrate a firm understanding and working knowledge of basic accounting terminology and the process by which transactions relate to the accounting cycle.
2. Be prepared to obtain employment in an entry-level position in the accounting field.
3. Demonstrate the ability to recognize and analyze ethical issues as they apply to the business 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.

REQUIRED COURSES - COMPLETE 18 UNITS

BUSAD 201	[NP]	Financial Accounting	4
BUSAD 202	[NP]	Managerial Accounting	4
BUSAD 203	[NP]	Computer Accounting	3
BUSAD 200	[NP]	Spreadsheet Skills for Financial Accounting	2
BUSAD 204	[NP]	Cost Accounting	3 OR
BUSAD 336	[NP]	Tax Accounting	3
BUSAD 300	[NP]	Machine Calculation	2

ELECTIVE COURSES - COMPLETE 6 UNITS

CMPS 201	[NP]	General Computer Literacy	3
CMPS 202	[NP]	Business Information Systems	3
BUSAD 377	[NP]	Human Relations in Business	3
BUSAD 230	[NP]	Personal Finance	3
BUSAD 50	[1]	Business Mathematics	3
BUSAD 319	[NP]	Payroll Accounting	3
BUSAD 218	[NP]	Business Law	4
Student may complete whichever course was not used in the REQUIRED units.			
BUSAD 204	[NP]	Cost Accounting	3 OR
BUSAD 336	[NP]	Tax Accounting	3

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

A.A. Degree: **Accounting**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.A. degree in Accounting at Modesto Junior College, students will be able to:

1. Demonstrate a firm understanding and working knowledge of basic accounting terminology and the process by which transactions relate to the accounting cycle.
2. Prepare and analyze basic financial statements.
3. Be prepared to obtain employment in an entry-level position in the accounting field.
4. Demonstrate the ability to recognize and analyze ethical issues as they apply to the business environment.

To earn an associate in arts 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.

REQUIRED COURSES - COMPLETE 20 UNITS

BUSAD 201	[1]	Financial Accounting	4
BUSAD 202	[2]	Managerial Accounting	4
CMPSC 201	[2]	General Computer Literacy.....	3
BUSAD 203	[3]	Computer Accounting	3
BUSAD 218	[4]	Business Law	4
BUSAD 200	[1]	Financial Accounting on Spreadsheet.....	2

MINIMUM UNITS IN A.A. MAJOR 20

A.S. Degree: **Accounting**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.S. degree in Accounting at Modesto Junior College, students will be able to:

1. Demonstrate a firm understanding and working knowledge of basic accounting terminology and the process by which transactions relate to the accounting cycle.
2. Prepare and analyze basic financial statements.
3. Be prepared to obtain employment in an entry-level position in the accounting field.

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.

REQUIRED COURSES COMPLETE 20 UNITS

BUSAD 201	[1]	Financial Accounting	4
BUSAD 202	[2]	Managerial Accounting	4
CMPSC 201	[2]	General Computer Literacy.....	3
BUSAD 203	[3]	Computer Accounting	3
BUSAD 218	[4]	Business Law	4
BUSAD 200	[1]	Financial Accounting on Spreadsheet.....	2

ELECTIVE COURSES - COMPLETE 10 UNITS

BUSAD 319	[3]	Payroll Accounting.....	3
BUSAD 204	[3]	Cost Accounting.....	3
BUSAD 336	[3]	Tax Accounting	3
CMPSC 202	[2]	Business Information Systems	3
BUSAD 274	[3]	Human Resources Management	3 OR
BUSAD 377	[3]	Human Relations in Business	3 OR
BUSAD 245	[3]	Principles of Marketing.....	3
BUSAD 240	[3]	Principles of Management.....	3
BUSAD 100	[1]	Success in Business.....	1½

MINIMUM UNITS IN A.S. MAJOR 30

Bookkeeping PROGRAM

The Bookkeeping Certificate is designed for students planning to enter the job market at the entry level as a bookkeeper/accounting clerk after completing the required program courses here at Modesto Junior College. Student should have keyboarding skills. If not, he/she should take a beginning keyboarding course.

In the Bookkeeping A.A./A.S. Degree program at Modesto Junior College, 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.

Certificate of Achievement: **Bookkeeping**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Bookkeeping at Modesto Junior College, students will be able to:

1. Demonstrate a firm understanding and working knowledge of basic accounting terminology and the process by which transactions relate to the accounting cycle.
2. Be prepared to obtain employment as an entry-level bookkeeper/accounting clerk.
3. Demonstrate the ability to recognize and analyze ethical issues as they apply to the business 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.

REQUIRED COURSES - COMPLETE 19 UNITS

BUSAD 50	[1]	Business Mathematics.....	3
BUSAD 310	[NP]	Bookkeeping 1	3
BUSAD 320	[NP]	Bookkeeping 2.....	3
BUSAD 203	[NP]	Computer Accounting	3
BUSAD 319	[NP]	Payroll Accounting.....	3
BUSAD 300	[NP]	Machine Calculation.....	2
BUSAD 200	[NP]	Spreadsheet Skills for Financial Accounting	2

ELECTIVE COURSES - COMPLETE 6 UNITS

CMPSC 202	[NP]	Business Information Systems	3
BUSAD 248	[NP]	Introduction to Business.....	3
OFADM 203	[NP]	Intermediate Keyboarding.....	3
OFADM 305	[NP]	Records Management	3
BUSAD 377	[NP]	Human Relations in Business.....	3

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

A.A. Degree: **Bookkeeping**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.A. degree in Bookkeeping at Modesto Junior College, students will be able to:

1. Demonstrate a firm understanding and working knowledge of basic accounting terminology and the process by which transactions relate to the accounting cycle.
2. Prepare basic financial statements.
3. Be prepared to obtain employment as an entry-level bookkeeper/accounting clerk.
4. Demonstrate the ability to recognize and analyze ethical issues as they apply to the business environment.

To earn an associate in arts 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.

REQUIRED COURSES - COMPLETE 19 UNITS

BUSAD 310	[1]	Bookkeeping 1.....	3
BUSAD 320	[2]	Bookkeeping 2.....	3
BUSAD 203	[4]	Computer Accounting.....	3
BUSAD 300	[1]	Machine Calculation.....	2
BUSAD 50	[1]	Business Mathematics.....	3
BUSAD 200	[2]	Spreadsheet Skills for Financial Accounting.....	2
BUSAD 319	[3]	Payroll Accounting.....	3

ELECTIVE COURSES - COMPLETE 3 UNITS

BUSAD 377	[2]	Human Relations in Business.....	3 OR
BUSAD 245	[2]	Principles of Marketing.....	3

MINIMUM UNITS IN A.A. MAJOR 22

A.S. Degree: **Bookkeeping**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.S. degree in Bookkeeping at Modesto Junior College, students will be able to:

1. Demonstrate a firm understanding and working knowledge of basic accounting terminology and the process by which transactions relate to the accounting cycle.
2. Prepare basic financial statements.
3. Be prepared to obtain employment as an entry-level bookkeeper/accounting clerk.
4. Demonstrate the ability to recognize and analyze ethical issues as they apply to the business environment.

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.

REQUIRED COURSES - COMPLETE 19 UNITS

BUSAD 310	[1]	Bookkeeping 1.....	3
BUSAD 320	[2]	Bookkeeping 2.....	3
BUSAD 203	[4]	Computer Accounting.....	3
BUSAD 300	[1]	Machine Calculation.....	2
BUSAD 50	[1]	Business Mathematics.....	3
BUSAD 200	[2]	Spreadsheet Skills for Financial Accounting.....	2
BUSAD 319	[3]	Payroll Accounting.....	3

ELECTIVE COURSES - COMPLETE 3 UNITS

BUSAD 377	[2]	Human Relations in Business.....	3 OR
BUSAD 245	[2]	Principles of Marketing.....	3

ADDITIONAL ELECTIVE COURSES - COMPLETE 8 UNITS

Any courses in Business Administration, Computer Science, or Office Administration

MINIMUM UNITS IN A.S. MAJOR 30

Business Administration PROGRAM

This curriculum plan is intended for those interested in transferring to a four-year college or university. Students are encouraged to consult with the business staff or 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, computer science, 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. Degree: **Business Administration**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.S. degree in Business Administration at Modesto Junior College, students will be able to:

1. A student would be prepared to transfer to most four year universities.
2. Will be prepared for upper division coursework.
3. Demonstrate the ability to recognize and analyze ethical issues as they apply to the business environment

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. It is suggested that the student who plans to transfer follow the *University Preparation Pathway*. To earn an Associate in Science Degree, students must complete the 15 Required Units for the Associate in Arts Degree, plus 15 units of coursework from Office Administration, Business Administration, Real Estate, Economics, or Computer Science. 4 units of vocational work experience will be accepted for the A.S. Degree as part of the 30-unit major requirement; none will be accepted for the A.A. Degree.

MINIMUM UNITS IN AS MAJOR 30

A.S.-T. Degree: **Business Administration (for Transfer)**

ABOUT THIS PROGRAM

The Associate in Science in Business Administration for Transfer degree is intended for students who plan to complete a bachelor's degree in Business Administration at a California State University campus. This degree includes lower division coursework that is required for transfer and provides students with solid, foundational insight into the complexities of the contemporary business environment. Coursework in the areas of accounting, business law, and economics will

equip students to recognize and analyze business, ethical, and financial issues in order to make informed decisions. Students who transfer to a California State University campus will be able to pursue degrees in areas such as accounting, finance, human resources management, international business, management, operations management, and marketing.

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate in Science Degree in Business Administration for Transfer will be able to:

1. *Transfer to the California State University system.*
2. *Be prepared for upper division coursework.*
3. *Recognize and analyze business and financial issues to ensure accurate reporting and to make informed business decisions.*
4. *Understand business terminology.*
5. *Recognize and analyze ethical issues as they apply to the business environment.*

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

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

REQUIRED CORE: (18 UNITS)

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

LIST A: COMPLETE 1 COURSE (3-5 UNITS)

MATH 138	Calculus for Business & Behavioral Sciences	3
MATH 134	Elementary Statistics	5
MATH 130	Finite Mathematics.....	3

LIST B: SELECT TWO (COMPLETE 5-8 UNITS)

Any list A course not used above		
CMPSC 201	Computer Literacy	3
BUSAD 248	Introduction to Business OR	3
BUSAD 210	Business Communication.....	3

TOTAL UNITS REQUIRED IN AS-T MAJOR27-29

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 AS-T DEGREE 60

Note: Double counting courses in GE and the major is permissible. Modesto Junior College Guidance and Activities requirements are not required for the Associate in Science in Business Administration for Transfer degree.

Business Operations PROGRAM

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

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

A.A. Degree: Business Operations: Management

Upon the successful completion of the A.A. degree in Business Operations Management at Modesto Junior College, students will be able to:

1. *Be prepared to obtain employment in an entry-level management position within the for-profit or non-profit sector.*
2. *Demonstrate appropriate and effective business communication skills.*
3. *Demonstrate the ability to think critically and analyze problems.*
4. *Demonstrate the ability to recognize and analyze ethical issues as they apply to the business environment.*

To earn an associate in arts 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.

REQUIRED COURSES - COMPLETE 20 UNITS

BUSAD 240	[1]	Principles of Management	3
CMPSC 202	[3]	Business Information Systems	3
BUSAD 210	[3]	Business Communications	3 OR
CMPGR 215	[3]	Business Presentation Graphics.....	3
BUSAD 201	[2]	Financial Accounting.....	4
BUSAD 218	[4]	Business Law	4
BUSAD 245	[2]	General Principles of Marketing	3

MINIMUM UNITS IN A.A. MAJOR 20

A.S. Degree: Business Operations: Management

Upon the successful completion of the A.S. degree in Business Operations Management at Modesto Junior College, students will be able to:

1. *Be prepared to obtain employment in an entry-level management position within the for-profit or non-profit sector.*
2. *Demonstrate appropriate and effective business communication skills.*
3. *Demonstrate the ability to think critically and analyze problems.*
4. *Demonstrate the ability to recognize and analyze ethical issues as they apply to the business environment.*

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.

ELECTIVE COURSES - COMPLETE 10 UNITS

Any courses in Business Administration, Computer Science, or Office Administration

UNITS IN A.S. MAJOR 30

PROGRAMS OFFERED

Clerical PROGRAM

The Clerical A.A./A.S. Degree/Certificate programs are 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, business communication, and math.

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 record keeper, file clerk, general office clerk, mail clerk, inventory clerk, receptionist, and word processor.

Certificate of Achievement: **Clerical**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Clerical at Modesto Junior College, students will be able to:

1. *Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment.*
 2. *Demonstrate the ability to 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 - COMPLETE 30 UNITS

BUSAD 310	[2]	Bookkeeping 1.....	3
BUSAD 50	[1]	Business Mathematics.....	3
OFADM 202	[1]	Intermediate Keyboarding	2
OFADM 231	[2]	Intermediate Word Processing	3
OFADM 303	[1]	Keyboarding for Speed & Accuracy (twice at ½ unit).....	1
OFADM 304	[1]	Professional English for Business.....	3
OFADM 305	[3]	Records Management	3
OFADM 313	[1]	Office Skills	3
OFADM 314	[2]	Office Procedures and Technologies	3
OFADM 353	[1]	Introduction to Computers and Windows.....	1
OFADM 359	[2]	Introduction to Spreadsheet Software.....	1
OFADM 362	[1]	Introduction to Business Presentation Software.....	1
OFADM 363	[1]	Understanding the Internet	1
OFADM 366	[2]	Proofreading Techniques	1
OFADM 375	[1]	10-Key on the Computer.....	1

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT 30

A.S. Degree: **Clerical**

The Clerical A.S. Degree 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.

EXPECTED STUDENT LEARNING OUTCOMES

Upon satisfactory completion of this program, the student will be able to:

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

PROGRAM REQUIREMENTS

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

REQUIRED COURSES

OFADM 202	[1]	Intermediate Keyboarding 2.....	2
OFADM 231	[2]	Intermediate Word Processing	3
OFADM 303	[1]	Keyboarding for Speed and Accuracy	½
OFADM 304	[2]	Professional English for Business	3
OFADM 305	[3]	Records Management	3
OFADM 313	[1]	Office Skills	3
OFADM 314	[3]	Office Procedures & Technologies	3
OFADM 315	[4]	Today's Office	2
OFADM 320	[3]	Telephone Techniques	1
OFADM 330	[1]	Beginning Word Processing.....	3
OFADM 359	[3]	Introduction to Spreadsheet Software.....	1
OFADM 362	[3]	Introduction to Business Presentation Software.....	1
OFADM 375	[4]	10-Key on the Computer	1
BUSAD 50	[2]	Business Computations	3

TOTAL UNITS..... 29½

Computer Applications Specialist PROGRAM

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

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: Computer Applications Specialist

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Computer Application Specialist at Modesto Junior College, students will be able 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

CMPSC 201	[1]	General Computer Literacy.....	3
CMPSC 202	[2]	Business Information Systems.....	3
CMPSC 203	[1]	Technical Computer Literacy.....	3
CMPGR 263	[1]	Internet Literacy.....	3
CMPSC 278	[2]	Spreadsheet Software.....	3
CMPSC 275	[2]	Database Management Systems.....	3

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

Computer Graphics Applications PROGRAM

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

Certificate of Achievement: Computer Graphics Applications

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Computer Graphics Applications at Modesto Junior College, students will be able to:

1. Design and develop products and procedures for digital imaging, animation, video editing, and current and emerging technologies.
2. Critically analyze digital files and other digital media that result in timely and appropriate client solutions.
3. Build and test web sites for personal and commercial needs.
4. Proficiently operate software, hardware, and equipment according to industry standards.
5. Translate client ideas into finished 3-D animations.
6. Collect, analyze, and interpret essential information of design concepts and/or stories in preparation for client presentations.
7. Use historical, societal, and cultural context to generate visual 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.

REQUIRED COURSES - COMPLETE 37 UNITS

ART 120	[1]	Basic Drawing 1.....	3
ART 124	[2]	Color and Design 1.....	3
CMPGR 213	[4]	Applied Computer Graphics.....	3
CMPGR 202	[1]	Introduction to Computer Graphics.....	3
CMPGR 215	[NP]	Business Presentation Graphics.....	3
CMPGR 217	[2]	Computer Illustration Software.....	3
CMPGR 219*	[4]	Computer Graphics Portfolio Review.....	1
CMPGR 225	[3]	3D Modeling and Animation.....	3
CMPGR 235	[2]	Beginning Photoshop.....	3
CMPGR 263	[NP]	Internet Literacy.....	3
CMPGR 264	[NP]	Publishing on the World Wide Web.....	3
CMPGR 284	[2]	Desktop Video Animation.....	3
CMPSC 201	[1]	General Computer Literacy.....	3 OR
CMPSC 202	[1]	Business Information Systems.....	3

ELECTIVE COURSES - COMPLETE 2 UNITS

ART 160	[NP]	Appreciation of Art.....	3
ART 170	[NP]	Basic Photography.....	3 OR
ART 181	[NP]	Basic Photography 1.....	1½ OR
ART 182	[NP]	Basic Photography 2.....	1½
CGR 201	[NP]	Graphic Arts Fundamentals.....	3
ART 123	[NP]	Figure Drawing.....	3
ELTEC 315	[NP]	Introduction to Media Systems.....	2
CMPSC 201	[1]	General Computer Literacy.....	3
CMPGR 236	[NP]	Advanced Photoshop.....	3
CMPGR 252	[3]	Desktop Publishing for Computer Graphics.....	3

PROGRAMS IN **BUSINESS**

CMPGR 262	[NP]	Exploring the World Wide Web	1
CMPGR 263	[NP]	Internet Literacy.....	3
CMPGR 264	[NP]	Publishing on the World Wide Web	3
CMPGR 265	[NP]	Multimedia on the World Wide Web.....	3
CMPGR 267	[2]	Dreamweaver in Website Design	3
CMPGR 268	[3]	Flash: Web Graphics and Animation 1	3
CMPGR 269	[4]	Flash: Web Graphics and Animation 2.....	3
CMPGR 285A,B	[NP]	Special Projects.....	1,2
CMPGR 287	[NP]	Introduction to Multimedia.....	3
CMPGR 298A,B	[NP]	Special Topics (with approval).....	1,2
CMPSC 267	[NP]	Microsoft Windows - Advanced.....	1

MINIMUM UNITS REQUIRED FOR CERTIFICATE OF ACHIEVEMENT 39

** Not required for A.S. Degree*

A.S. Degree: Computer Graphics Applications

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.S. degree in Computer Graphics Applications at Modesto Junior College, students will be able to:

1. *Design and develop products and procedures for digital imaging, animation, video editing, and current and emerging technologies.*
2. *Critically analyze digital files and other digital media that result in timely and appropriate client solutions.*
3. *Build and test web sites for personal and commercial needs.*
4. *Proficiently operate software, hardware, and equipment according to industry standards.*
5. *Translate client ideas into finished 3-D animations.*
6. *Collect, analyze, and interpret essential information of design concepts and/or stories in preparation for client presentations.*
7. *Use historical, societal, and cultural context to generate visual communication.*

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 Required and Elective courses for certificate, with the exception of CMPGR 219.

TOTAL UNITS REQUIRED IN A.S. MAJOR 39

Computer Information Systems PROGRAM

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

A.S. Degree: Computer Information Systems

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate in arts degree in Computer Information Systems will be able 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.*

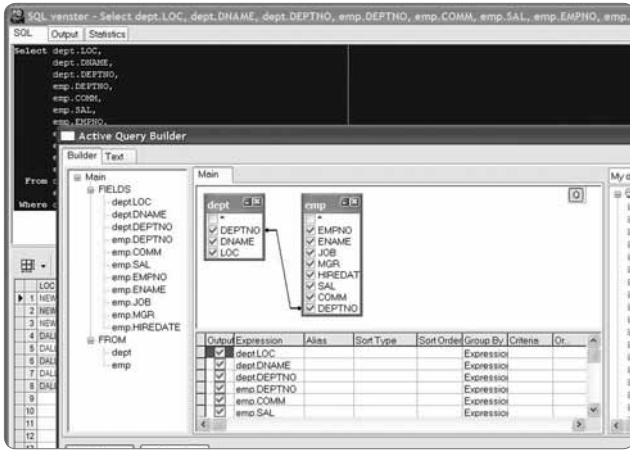
To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements below. Students are urged to meet with a Computer Science faculty advisor to assist them plan their specific program for graduation.

REQUIRED COURSES - COMPLETE 21 UNITS

CMPSC 202	[1]	Business Information Systems	3
BUSAD 201	[1]	Financial Accounting.....	4
BUSAD 202	[2]	Managerial Accounting.....	4
BUSAD 218	[4]	Business Law	4
CMPSC 275	[2]	Database Mngmnt. Systems.....	3
CMPSC 220	[4]	Database Server Administration	3

MINIMUM UNITS IN A.A. MAJOR 21

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



Computer Science PROGRAM

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

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

PROGRAMS OFFERED

Computer Programming Specialist PROGRAM

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.

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Computer Programming Specialist at Modesto Junior College, students will be able 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 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 13 UNITS

CMPSC 204	[1]	Introduction to Programming.....	3
CMPSC 205	[2]	Problem Solving and Programming 1	4
CMPSC 206	[2]	UNIX/Linux OS	3
CMPSC 213	[2]	Programming with Visual Basic	3

ELECTIVE COURSES – COMPLETE 3-4 UNITS

CMPSC 214	[3]	Advanced Visual Basic	3
CMPSC 216	[2]	Script Programming for the Web	3
CMPSC 261	[3]	Problem Solving and Programming 2	4
CMPSC 291	[3]	Windows Programming with Visual Studio.....	4

MINIMUM UNITS FOR CERTIFICATE OF ACHIEVEMENT 16

A.A. Degree: Computer Science

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate in arts degree in Computer Science will be able to:

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

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements below. Students are urged to meet with a Computer Science faculty advisor to assist them plan their specific program for graduation.

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

RECOMMENDED PREPARATION - (NOT PART OF MAJOR)

OFADM 301	[1]	Beginning Keyboarding.....	1½
		Equivalent Keyboarding Skills	

REQUIRED COURSES - COMPLETE 20 UNITS

CMPSC 205	[2]	Problem Solving and Programming 1	4
CMPSC 219	[4]	Discrete Structures for Computer Science	4
CMPSC 241	[4]	Assembly Language Programming	4
CMPSC 261	[3]	Problem Solving and Programming 2	4
MATH 122	[1]	Functions and Analytical Geometry.....	4
		(Higher Math)	4

MINIMUM UNITS FOR A.A. MAJOR..... 20

A.S. Degree: **Computer Science**

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate in science degree in Computer Science will be able 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.
7. Hearing no objections, the committee was notified of the proposed Program Learning Outcomes.

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. Students are urged to meet with a Computer Science faculty advisor to assist them plan their specific program for graduation.

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

REQUIRED OPTION - COMPLETE ONE OPTION FOR 30-33 UNITS

Information Systems Option

CMPSC 203	[1]	Technical Computer Literacy	3
CMPSC 204	[1]	Introduction to Programming	3
CMPSC 275	[1]	Database Management Systems	3
CMPSC 202	[2]	Business Information Systems	3
CMPSC 213	[2]	Programming with Visual Basic	3
CMPSC 276	[2]	Web Database Development.....	3
CMPSC 225	[3]	Database Programming with SQL.....	3
CMPSC 278	[3]	Spreadsheet Software	3
CMPSC 220	[4]	Database Server Administration	3
CMPSC 294	[4]	Computer Science Final Project.....	3

Networking Option

CMPSC 204	[1]	Introduction to Programming.....	3
CMPSC 263	[2]	Networking Essentials.....	4
CMPSC 206	[2]	UNIX/Linux OS.....	3
CMPSC 220	[4]	Database Server Administration	3
CMPSC 264	[2]	Windows Server OS.....	3
CMPSC 225	[3]	Database Programming with SQL.....	3
CMPSC 281	[3]	Advanced Networking and Security.....	3
CMPSC 289	[3]	Directory Services	3
CMPSC 202	[4]	Business Information Systems	3
CMPSC 294	[4]	Computer Science Final Project.....	3

Programming Option

CMPSC 201	[1]	General Computer Literacy.....	3
CMPSC 204	[1]	Introduction to Programming.....	3
CMPSC 205	[2]	Problem Solving and Programming 1	4
CMPSC 206	[2]	UNIX/Linux OS.....	3
CMPSC 213	[2]	Programming with Visual Basic	3
CMPSC 214	[3]	Advanced Visual Basic	3
CMPSC 216	[2]	Script Programming for the Web	3
CMPSC 261	[3]	Problem Solving and Programming 2	4

CMPSC 241	[4]	Assembly Language Programming	4
CMPSC 294	[4]	Computer Science Final Project.....	3

MINIMUM UNITS IN A.S. MAJOR30-33

International Business PROGRAM

The International Business Certificate of Achievement is designed for those 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 considerations are addressed in relation to business of all sizes and types.

Certificate of Achievement: International Business

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in International Business at Modesto Junior College, students will be able to:

1. Demonstrate and understanding of domestic and international business practices
2. Demonstrate and understanding of economic, cultural, and ethical differences in conducting business
3. Be prepared to gain employment in an organization to pursue entrepreneurial aspirations in global commerce

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)	Survey of International Business.....	3
BUSAD 209	(2)	Import/Export Fundamentals.....	3
BUSAD 218	(3)	Business Law	4
CMPSC 202	(2)	Business Information Systems	3

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



Marketing PROGRAM

The Marketing program is designed for those students interested in activities relating to the presentation, purchase, and distribution of goods and services in profit and nonprofit organizations. Students will learn the central role that marketing plays in organizations of every size and type, public and private.

A.A. Degree: Marketing

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.A. degree in Marketing at Modesto Junior College, students will be able to:

1. Apply fundamental sales and marketing techniques.
2. Apply communication strategies for various audiences and contexts.
3. Demonstrate the ability to recognize and analyze ethical issues as they apply to the marketing environment.

To earn an associate in arts 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.

REQUIRED COURSES - COMPLETE 20 UNITS

BUSAD 210	[NP]	Business Communications	3
BUSAD 240	[NP]	Principles of Management	3
BUSAD 245	[NP]	Principles of Marketing.....	3
BUSAD 299A,B	[NP]	Marketing Projects.....	1-2
BUSAD 358	[NP]	Sales and Ad Promotion	3
CMPGR 215	[NP]	Business Presentation Graphics.....	3
CMPSC 201	[1]	General Computer Literacy.....	3

MINIMUM UNITS IN A.A. MAJOR 20

A.S. Degree: Marketing

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.S. degree in Marketing at Modesto Junior College, students will be able to:

1. Apply fundamental sales and marketing techniques.
2. Apply communication strategies for various audiences and contexts.
3. Demonstrate the ability to recognize and analyze ethical issues as they apply to the marketing environment.

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.

ELECTIVE COURSES - COMPLETE 10 UNITS

BUSAD 310	[NP]	Bookkeeping 1.....	3	OR
BUSAD 201	[NP]	Financial Accounting	4	OR
BUSAD 218	[NP]	Business Law	4	
BUSAD 200	[NP]	Spreadsheet Skills for Financial Accounting	2	
ANY 4-5 UNITS OF COURSEWORK IN BUSAD, OFADM OR CMPSC				

MINIMUM UNITS IN A.S. MAJOR 30

Network Administration PROGRAM

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

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Computer Network Administration at Modesto Junior College, students will be able 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 15 UNITS

CMPSC 206	[1]	UNIX/Linux OS	3
CMPSC 220	[4]	Database Server Administration	3
CMPSC 264	[2]	Windows Server OS	3
CMPSC 281	[2]	Advanced Networking and Security	3
CMPSC 289	[2]	Directory Services.....	3

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

Certificate of Achievement: Computer Network Technician

This certificate of achievement is designed for students seeking an entry-level position in computer network hardware installation, troubleshooting and repair.

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Computer Network Technician at Modesto Junior College, students will be able 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.

PROGRAMS IN **BUSINESS**

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 14 UNITS

CMPSC 201	[1]	General Computer Literacy.....	3
CMPET 206	[1]	Personal Computer Assembly, Upgrading and Repr	3
CMPET 210	[2]	Intermediate Personal Computer Assembly, Upgrading, and Repair (CompTIA A+).....	3
CMPGR 262	[1]	Exploring the Internet.....	1
CMPSC 263	[2]	Networking Essentials	4

ELECTIVE COURSES - COMPLETE 3 UNITS

CMPSC 206	[2]	UNIX/Linux Systems and Programming.....	3
ELTEC 208	[1]	World of Electricity and Electronics.....	3

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

Office Administration PROGRAM

The Office Administration A.A./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.

Certificate of Achievement: Office Administration

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Office Administration at Modesto Junior College, students will be able to:

- Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment.
- Competently communicate in support of a business office, including production and design of complex electronic and paper based correspondence and documents.
- Actively assist in implementing general office procedures, including records management.
- Use the Internet, a wide variety of computer applications and standard business procedures to compute, analyze business performance and solve problems.
- Efficiently perform office-related duties utilizing prioritization and necessary communication skills.

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

REQUIRED COURSES - COMPLETE 32 UNITS

OFADM 202	[1]	Intermediate Keyboarding 2.....	2
OFADM 231	[1]	Intermediate Word Processing	3
OFADM 311	[1]	Business Proofreading and Editing	3
OFADM 314	[1]	Office Procedures and Technologies	3
OFADM 315	[2]	Today's Office	2
OFADM 359	[1]	Introduction to Spreadsheet Software.....	1

OFADM 361	[2]	Introduction to Databases	1
OFADM 363	[1]	Understanding the Internet	1
OFADM 320	[1]	Telephone Techniques	1
BUSAD 210	[2]	Business Communication	3
OFADM 232	[2]	Advanced Word Processing & Desktop Publishing	3
OFADM 329	[2]	Machine Transcription 2	2
OFADM 375	[1]	10-Key on the Computer.....	1
CMPGR 215	[2]	Business Presentation Graphics.....	3
BUSAD 50	[1]	Business Mathematics.....	3

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

A.S. Degree: Office Administration

The Office Administration A.S. Degree Program is designed to prepare students for occupations in the office administration field. Some career possibilities are administrative assistant, executive secretary, office supervisor, and office manager. Office administration involves the study of office procedures, duties, and practices applicable to many business offices, as well as the development and acquisition of skills necessary for success in these positions. Students learn keyboarding, word processing, human relations, business communication, and entry-level bookkeeping. Word processing, letter composition, and office procedures are emphasized to prepare students for the assumption of responsible positions.

EXPECTED STUDENT LEARNING OUTCOMES

Upon satisfactory completion of this program, the student will be able to:

- Actively assist in implementing general office procedures, including records management.
- Use the Internet, a wide variety of computer applications, and standard business procedures to compute, analyze business performance, and solve problems.
- Efficiently perform office-related duties utilizing prioritization and necessary communication skills.
- Competently communicate in support of a business office, including production and design of complex electronic and paper-based correspondence and documents.
- Demonstrate the ability to competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines.
- Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment.

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 27½ UNITS

OFADM 202	[1]	Intermediate Keyboarding 2.....	2
OFADM 231	[2]	Intermediate Word Processing	3
OFADM 232	[3]	Advanced Word Processing and Desktop Publishing	3
OFADM 303	[1]	Keyboarding for Speed and Accuracy	½
OFADM 304	[2]	Professional English for Business	3
OFADM 314	[3]	Office Procedures & Technologies	3
OFADM 315	[4]	Today's Office	2
OFADM 320	[1]	Telephone Techniques	1
OFADM 359	[1]	Introduction to Spreadsheet Software.....	1
OFADM 361	[1]	Introduction to Databases	1
OFADM 362	[1]	Introduction to Business Presentation Software.....	1
OFADM 375	[3]	10-Key on the Computer.....	3
BUSAD 210	[4]	Business Communication.....	3
BUSAD 310	[2]	Bookkeeping 1	3

TOTAL UNITS IN A.S. DEGREE..... 27½

Office Computer Applications PROGRAM

The Office Computer Applications Certificate of Achievement will be given for occupational preparation and/or career supplementation and/or career upgrade. These courses will help students meet the "computer" requirements needed for today's office worker: keyboarding, advanced document preparation including mail merge and linking/embedding documents, spreadsheet design and analysis, computer presentation design, information management utilizing a database, and the Windows operating system.

Certificate of Achievement: Office Computer Applications

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Office Computer Applications Specialist at Modesto Junior College, students will be able to:

1. Use the Internet, a wide variety of computer applications and standard business procedures to compute, analyze business performance and solve problems.
2. Demonstrate the ability to competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines.

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

REQUIRED COURSES - COMPLETE 18 UNITS

OFADM 301	[1]	Beginning Keyboarding.....	1½
OFADM 302	[1]	Beginning Document Processing.....	1½
OFADM 202	[2]	Intermediate Keyboarding 2.....	2
OFADM 330	[1]	Beginning Word Processing.....	3
OFADM 231	[2]	Intermediate Word Processing.....	3
CMPSC 278	[2]	Spreadsheet Software.....	3
OFADM 361	[2]	Introduction to Databases.....	1
OFADM 362	[2]	Introduction to Business Presentation Software.....	1
OFADM 353	[1]	Introduction to Windows.....	1

MINIMUM UNITS FOR CERTIFICATE OF ACHIEVEMENT 17

Office Support PROGRAM

The Office Support Certificate of Achievement is designed for students desiring to meet entry-level qualifications for office support positions which require keyboarding, telephone techniques, business document formatting, document organization, time management, word processing skills, Internet and e-mail protocol, and spreadsheet design.

Certificate of Achievement: Office Support

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Office Support at Modesto Junior College, students will be able 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 301	[1]	Beginning Keyboarding.....	1½
OFADM 302	[1]	Beginning Document Processing.....	1½
OFADM 304	[1]	Professional English for Business.....	3
OFADM 305	[2]	Records Management.....	3
OFADM 314	[NP]	Office Procedures and Technologies.....	3
OFADM 320	[1]	Telephone Techniques.....	1
OFADM 330	[2]	Beginning Word Processing.....	3
OFADM 359	[2]	Introduction to Spreadsheets.....	1
OFADM 363	[2]	Introduction to the Internet.....	1

MINIMUM UNITS FOR CERTIFICATE OF ACHIEVEMENT 18



Professional Selling PROGRAM

The Professional Selling Certificate program concerns itself with the activities that take place in the sale and distribution of goods and services in a world economy. It includes such areas of creative selling as marketing and business communication. Professional Selling is an important part of the marketing process. The salesperson must be able to interpret product and service features in terms of benefits and advantages to the consumer, and to then persuade the buyer to select that product or service. In the Professional Selling Program, the student is trained for entry-level jobs in sales.

Certificate of Achievement: Professional Selling

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Professional Selling at Modesto Junior College, students will be able to:

1. Apply communication strategies for various audiences and contexts.
2. Demonstrate the ability to recognize and analyze ethical issues as they apply to the professional selling environment.
3. Be prepared to obtain employment in entry level sales position.

- 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

BUSAD 210	[NP]	Business Communication	3
BUSAD 245	[NP]	Principles of Marketing.....	3
BUSAD 377	[NP]	Human Relations in Business.....	3
BUSAD 50	[1]	Business Mathematics.....	3
SPCOM 100	[NP]	Fundamentals of Public Speaking.....	3
ENGL 101	[NP]	Composition and Reading	3 OR
ENGL 50	[NP]	Basic Composition and Reading.....	3
BUSAD 201	[NP]	Financial Accounting	4 OR
BUSAD 310	[NP]	Bookkeeping 1.....	3
BUSAD 240	[NP]	Principles of Management.....	3
BUSAD 358	[NP]	Sales and Ad Promotion.....	3

ADDITIONAL ELECTIVE COURSES - COMPLETE 3 UNITS

Any courses in Business Administration, Computer Science, or Office Administration

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

Real Estate PROGRAM

The Real Estate A.A./A.S. Degree/Certificate 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, financing economics, legal aspects of real estate appraisal, and escrow. The courses fulfill the state requirements for the salesperson and/or brokers license. Students may qualify for entry level jobs in the real estate field. Classes are also designed to upgrade the skills of persons who already work in the real estate or escrow field.

Certificate of Achievement: Real Estate

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Real Estate at Modesto Junior College, students will be able to:

1. Demonstrate a firm understanding and working knowledge of basic real estate terminology and common California real estate practices.
2. Prepare students to qualify for the basic California real estate agent's and/or broker's exam.
3. Be prepared to obtain employment in an entry-level position in the real estate field.
4. Demonstrate the ability to recognize and analyze ethical issues as they apply to the real estate 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.

REQUIRED COURSES - COMPLETE 15 UNITS

RLES 380	[NP]	Real Estate Principles.....	3
RLES 381	[NP]	Real Estate Practices	3
RLES 384	[NP]	Real Estate Finance	3
RLES 385	[NP]	Real Estate Appraisal/Residential	3
RLES 392	[NP]	Basic Escrow Procedures.....	3

ELECTIVE COURSES COMPLETE 6-8 UNITS

RLES 382	[NP]	Legal Aspects of Real Estate	3 OR
BUSAD 218	[NP]	Business Law	4
BUSAD 201	[NP]	Financial Accounting.....	4

Complete 3-5 units to meet 26 unit requirement

Courses in Business Administration, Economics, Psychology, or Speech Communication

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

A.A. Degree: **Real Estate**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.A. degree in Real Estate at Modesto Junior College, students will be able to:

1. Demonstrate a firm understanding and working knowledge of basic real estate terminology and common California real estate practices.
2. Prepare students to qualify for the basic California real estate agent's and/or broker's exam.
3. Be prepared to obtain employment in an entry-level position in the real estate field.
4. Demonstrate the ability to recognize and analyze ethical issues as they apply to the real estate environment.

To earn an associate in arts 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

REQUIRED COURSES - COMPLETE 20 UNITS

RLES 380	[1]	Real Estate Principles	3
RLES 381	[2]	Real Estate Practices.....	3
RLES 382	[2]	Legal Aspects of Real Estate 1	3
RLES 384	[3]	Real Estate Finance	3
BUSAD 201	[2]	Financial Accounting.....	4
BUSAD 218	[1]	Business Law	4

MINIMUM UNITS IN A.A. MAJOR 20

A.S. Degree: **Real Estate**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.S. degree in Real Estate at Modesto Junior College, students will be able to:

1. Demonstrate a firm understanding and working knowledge of basic real estate terminology and common California real estate practices.
2. Prepare students to qualify for the basic California real estate agent's and/or broker's exam.
3. Be prepared to obtain employment in an entry-level position in the real estate field.
4. Demonstrate the ability to recognize and analyze ethical issues as they apply to the real estate environment.

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 20 Required Units, 10 business Elective Units. Student should consult with a Real Estate advisor for selection of Elective Units.

REQUIRED COURSES - COMPLETE 20 UNITS

RLES 380	[1]	Real Estate Principles.....	3
RLES 381	[2]	Real Estate Practices	3
RLES 382	[2]	Legal Aspects of Real Estate 1	3
RLES 384	[3]	Real Estate Finance.....	3
BUSAD 201	[2]	Financial Accounting	4
BUSAD 218	[1]	Business Law	4

ELECTIVE COURSES - COMPLETE 10 UNITS (SEE ABOVE)

MINIMUM UNITS IN A.S. MAJOR 30

Records Management PROGRAM

The Records Management/Data Entry Specialist Certificate of Achievement is designed for students desiring to meet entry-level requirements for records management and data entry employees: keyboarding, filing rules and their applications, manual and computer filing system development, telephone techniques, time management skills, ten-key data entry and math calculations.

Certificate of Achievement: **Records Management/Data Entry Specialist**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Records Management/Data Entry Specialist at Modesto Junior College, students will be able to:

1. Actively assist in implementing general office procedures, including records management.
2. Efficiently perform office-related duties utilizing prioritization and necessary communication skills.
3. Utilize computer software to manage data effectively.

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

REQUIRED COURSES - COMPLETE 16 UNITS

OFADM 301	[1]	Beginning Keyboarding.....	1½
OFADM 302	[1]	Beginning Document Processing	1½
OFADM 304	[1]	Professional English for Business	3
OFADM 305	[2]	Records Management	3
OFADM 313	[1]	Office Skills	3
OFADM 361	[2]	Introduction to Databases	1
OFADM 375	[2]	10-Key on the Computer	1
BUSAD 300	[2]	Machine Calculations	2

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

Retail Management PROGRAM

The Retail Management Certificate Program is designed for individuals who are interested in or are currently employed in the retail industry and seek advancement into a managerial position in that field. Course work includes: retail store management, information systems, business mathematics, workplace writing, accounting, human resource management, marketing and business communications. Certificates are awarded to students in recognition of completion of specified requirements, which indicate proficiency. All certificate Required Courses must be passed with a "C" grade or better. Interested students should consult division advisors.

Certificate of Achievement: Retail Management (WAFC)

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Retail Management (WAFC) at Modesto Junior College, students will be able to:

1. Apply communication strategies for retail selling environment.
 2. Demonstrate the ability to recognize and analyze ethical issues as they apply to the retail selling environment.
 3. Be prepared to obtain employment in retail sales position.
- 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

BUSAD 50	[1]	Business Mathematics.....	3
ENGL 50	[1]	Basic Composition and Reading.....	3 OR
ENGL 101	[NP]	Composition and Reading.....	3
CMPSC 201	[1]	General Computer Literacy.....	3 OR
CMPSC 202	[2]	Business Information Systems.....	3
SPCOM 100	[1]	Fundamentals of Public Speaking.....	3 OR
SPCOM 101	[NP]	Voice and Articulation.....	3 OR
SPCOM 102	[NP]	Introduction to Human Communication.....	3 OR
SPCOM 106	[NP]	Group Organizational Communication.....	3
BUSAD 240	[2]	Principles of Management.....	3 OR
SUPR 351	[NP]	Elements of Supervision.....	3
BUSAD 310	[2]	Bookkeeping 1.....	3 OR
BUSAD 201	[NP]	Financial Accounting.....	4
BUSAD 377	[3]	Human Relations in Business.....	3
BUSAD 274	[3]	Human Resources Management.....	3
BUSAD 210	[2]	Business Communication.....	3 OR
OFADM 311	[NP]	Business Proofreading and Editing.....	3

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

Supervisory Management PROGRAM

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.

Certificate of Achievement: Supervisory Management

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Supervisory Management at Modesto Junior College, students will be able to:

1. Demonstrate appropriate and effective business communication skills.
 2. Be prepared to obtain employment in an entry-level supervisory position within industry and/or government sectors.
 3. Demonstrate the ability to recognize and analyze ethical issues as they apply to the business 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.

REQUIRED COURSES - COMPLETE 12 UNITS

SUPR 106	[1]	Group and Organizational Communication.....	3
SUPR 351	[1]	Elements of Supervision.....	3
BUSAD 274	[3]	Human Resources Management.....	3
SUPR 364	[2]	Total Quality Management.....	3

ELECTIVE COURSES - COMPLETE 9 UNITS

Any course in Business Administration, Computer Science, or Office Administration.

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

A.A. Degree: **Supervisory Management**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.A. degree in Supervisory Management at Modesto Junior College, students will be able to:

1. Demonstrate appropriate and effective business communication skills.
2. Be prepared to obtain employment in an entry-level supervisory position within industry and/or government sectors.
3. Demonstrate the ability to recognize and analyze ethical issues as they apply to the business environment.

To earn an associate in arts 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

REQUIRED COURSES - COMPLETE 12 UNITS

SUPR 106	[1]	Group and Organizational Communication.....	3
SUPR 351	[1]	Elements of Supervision.....	3
BUSAD 274	[3]	Human Resources Management.....	3
SUPR 364	[2]	Total Quality Management.....	3

ELECTIVE COURSES - COMPLETE 9 UNITS

BUSAD 310	[2]	Bookkeeping 1	3 OR
BUSAD 201	[2]	Financial Accounting	4
BUSAD 210	[2]	Business Communication	3 OR
OFADM 304	[2]	Professional English for Business.....	3
BUSAD 240	[NP]	Principles of Management	3
BUSAD 245	[NP]	Principles of Marketing.....	3
BUSAD 248	[3]	Introduction to Business.....	3
BUSAD 377	[NP]	Human Relations in Business.....	3

MINIMUM UNITS IN A.A. MAJOR 21

A.S. Degree: **Supervisory Management**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.S. degree in Supervisory Management at Modesto Junior College, students will be able to:

1. Demonstrate appropriate and effective business communication skills.
2. Be prepared to obtain employment in an entry-level supervisory position within industry and/or government sectors.
3. Demonstrate the ability to recognize and analyze ethical issues as they apply to the business environment.

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. Student should consult with a Supervisory Management advisor for selection of Elective Units.

REQUIRED COURSES - COMPLETE 12 UNITS

SUPR 106	[1]	Group and Organizational Communication.....	3
SUPR 351	[1]	Elements of Supervision.....	3
BUSAD 274	[3]	Human Resources Management.....	3
SUPR 364	[2]	Total Quality Management.....	3

ELECTIVE COURSES - COMPLETE 9 UNITS

BUSAD 310	[2]	Bookkeeping 1	3 OR
BUSAD 201	[2]	Financial Accounting	4
BUSAD 210	[2]	Business Communication	3 OR
OFADM 304	[2]	Professional English for Business.....	3
BUSAD 240	[NP]	Principles of Management	3
BUSAD 245	[NP]	Principles of Marketing.....	3
BUSAD 248	[3]	Introduction to Business.....	3
BUSAD 377	[NP]	Human Relations in Business.....	3

ADDITIONAL ELECTIVE COURSES - COMPLETE 9 UNITS

Any course in Business Administration, Computer Science, or Office Administration

UNITS IN A.S. MAJOR 30

Word Processing PROGRAM

The Word Processing Certificate program is designed to teach students word processing skills and concepts. Students acquire the necessary competencies for the modern office. Word processing and Desktop publishing has become one of the fastest growing careers during the past decade. There are a wide variety of employment opportunities available.

Certificate of Achievement: **Word Processing**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Word Processing at Modesto Junior College, students will be able to:

1. *Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment.*
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 26 UNITS

OFADM 303	[NP]	Keyboarding for Speed & Accuracy (twice at ½ unit)	1
OFADM 203	[1]	Intermediate Keyboarding.....	3
OFADM 231	[1]	Intermediate Word Processing	3
OFADM 232	[2]	Advanced Word Processing & Desktop Publishing	3
OFADM 311	[1]	Business Proofreading and Editing	3
OFADM 314	[2]	Office Procedures and Technologies	3
OFADM 359	[1]	Introduction to Spreadsheet Software	1
OFADM 361	[2]	Introduction to Databases	1
OFADM 363	[1]	Understanding the Internet	1
OFADM 364	[1]	Grammar in the Office.....	1
BUSAD 210	[2]	Business Communication	3
CMPGR 215	[2]	Business Presentation Graphics	3

ELECTIVE COURSES - COMPLETE 6 UNITS

CMPGR 214	[NP]	Digital Capture for Computer Graphics	3
CMPGR 217	[NP]	Computer Illustration Software.....	3
CMPGR 235	[NP]	Beginning Photoshop.....	3
CMPGR 264	[NP]	Publishing on the World Wide Web	3

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

Note: Not all courses are offered every semester; therefore, students should see an advisor for appropriate course sequence.

Family & Consumer Sciences

DEGREES, CERTIFICATES, & SKILLS RECOGNITIONS

Patrick Bettencourt, Dean

West Campus
John Muir Hall, Room 157
(209) 575-6354

INSTRUCTION IN:

Child Development (CLDDV)
Interior Design (INTDS)

AWARDS IN:

Associate Teacher (CLDDV), SR
Child Development, AS
Early Intervention Asst 1 (CLDDV) C
Teacher (CLDDV) C
Master Teacher (CLDDV), C
Site Supervisor (CLDDV) C

SUPPORT STAFF

Colleen Norby, Administrative Specialist
Geri Wend, Administrative Secretary

Child Development PROGRAM

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. Degree: Child Development

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.S. degree in Child Development at Modesto Junior College, students will be able to:

1. Integrate understanding of the needs, the characteristics and multiple influences on development of children birth to age eighth as related to high quality care and education of young children
2. Design, implement and evaluate environments and activities through observation, assessment, and intentional reflection that support positive, developmental play and learning outcomes for all young children
3. Apply effective guidance and interaction strategies that support all children's social learning, identity and self-confidence
4. Develop strategies that promote partnerships between programs, teachers, families and their communities
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. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements below

REQUIRED COURSES - COMPLETE 33 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 111	[2]	Health, Safety, and Nutrition.....	3
CLDDV 121	[2]	Guidance of Young Children.....	3
CLDDV 125	[2]	Infant and Toddler Development.....	3
CLDDV 126	[4]	Inclusion Special Needs Practicum.....	3-5 OR
CLDDV 127BCD	[3]	Infant and Toddler Practicum.....	2-4 OR
CLDDV 128	[3]	Preschool Practicum.....	3-5
CLDDV 163	[4]	Working with Children with Special Needs.....	3
CLDDV 167	[4]	Observation and Assessment.....	3
CLDDV 262	[4]	Diversity in Educational Settings.....	3

MINIMUM UNITS IN A.S. MAJOR 33

CERTIFICATES IN CHILD DEVELOPMENT

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.

**Certificate of Achievement:
Associate Teacher**

EXPECTED STUDENT LEARNING OUTCOMES

- Upon satisfactory completion of this program, the student will be able 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 Skills Recognition Award, the student must complete the following coursework. Each course must be completed with a C or better.

REQUIRED COURSES - COMPLETE 12 UNITS

CLDDV 101	[1]	Principles and Practices of Teaching Young Children.....	3
CLDDV 103	[1]	Child Growth and Development	3
CLDDV 107	[2]	Introduction to Curriculum.....	3
CLDDV 109	[2]	Child-Family-Community	3

TOTAL UNITS 12

Certificate of Achievement: Teacher

EXPECTED STUDENT LEARNING OUTCOMES

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

PROGRAM REQUIREMENTS

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

REQUIRED COURSES - COMPLETE 18 UNITS

CLDDV 101	[1]	Principles and Practices of Teaching Young Children.....	3
CLDDV 103	[1]	Child Growth and Development	3
CLDDV 107	[2]	Introduction to Curriculum.....	3
CLDDV 109	[2]	Child-Family-Community	3
CLDDV 121	[3]	Guidance of Young Children	3
CLDDV 126CDE	[3]	Inclusion Special Needs Practicum	3 OR
CLDDV 127BCD	[3]	Infant/Toddler Practicum	3 OR
CLDDV 128C	[3]	Preschool Practicum.....	3

ELECTIVE COURSES--COMPLETE 6 UNITS

CLDDV 111	[4]	Health, Safety, and Nutrition.....	3
CLDDV 125	[4]	Infant and Toddler Development and Care.....	3
CLDDV 163	[4]	Working With Children With Special Needs.....	3
CLDDV 167	[4]	Observation and Assessment.....	3
CLDDV 262	[4]	Diversity in Educational Settings.....	3

TOTAL UNITS 24

Certificate of Achievement: Master Teacher

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Master Teacher at Modesto Junior College, students will be able 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 Permit issued through State of California, Commission on Teacher Credentialing.
2. 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.)
3. Apply effective guidance and interaction strategies that support all children's social learning, identity and self-confidence as the lead teacher in the classroom.
4. 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 126C	[4]	Inclusion Special Needs Practicum	3 OR
CLDDV 127C	[3]	Infant and Toddler Practicum	3 OR
CLDDV 128 C	[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	3
CLDDV 163	[4]	Working with 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:

Early Intervention Option - Complete
CLDDV 163	3
CLDDV 167	3, or
CLDDV 160	3
Infant/Toddler Option - Complete 6 units.
CLDDV 125	3
CLDDV 127	3
CLDDV 122	3

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

PROGRAMS OFFERED

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

Certificate of Achievement: Child Development Site Supervisor

EXPECTED STUDENT LEARNING OUTCOMES

Upon satisfactory completion of this program, the student will be able 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 23 UNITS

CLDDV 101	[1]	Principles and Practices of Teaching Young Children	3
CLDDV 103	[1]	Child Growth and Development	3
CLDDV 107	[2]	Introduction to Curriculum	3
CLDDV 109	[2]	Child-Family-Community	3
CLDDV 126CDE	[3]	Inclusion Special Needs Practicum	3 OR
CLDDV 127BCD	[2]	Infant/Toddler Practicum	3 OR
CLDDV 128BCDE	[2]	Preschool Practicum	3
CLDDV 150	[3]	Administration of Children's Programs	3
CLDDV 151	[4]	Advanced Administration of Children's Pro.....	3
CLDDV 154	[3]	Adult Relationship & Mentoring in School.....	2

ELECTIVE COURSES: COMPLETE 9 UNITS

CLDDV 111		Health, Safety, and Nutrition	3
CLDDV 121		Guidance of Young Children	3
CLDDV 125		Infant and Toddler Development and Care	3
CLDDV 160		Atypical Development.....	3
CLDDV 163		Working With Children With Special Needs.....	3
CLDDV 167		Observation and Assessment.....	3
CLDDV 262		Diversity in Educational Settings	3

TOTAL UNITS 32

Certificate of Achievement: **Early Interventionist**

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the Certificate of Achievement in Early Interventionist at Modesto Junior College, students will be able to:

1. Recognize and describe the courses totaling 32 units necessary to complete this certificate and recognize how the certificate qualifies a student to work at the Early Intervention Assistant II level of the California Early Start Personnel Model.
2. Develop considerations for meeting exceptional needs, including teacher/early interventionist competencies, intervention, instructional strategies, and parent involvement in the context of cultural diversity.
3. Describe the natural environment and inclusion for infants and young children with disabilities in and the connection to family systems and the family need for education and support.
4. Demonstrate knowledge of the legal and ethical responsibilities, including confidentiality related to assessment in early childhood settings including legislation regarding IFSP, IEP, and development.

REQUIRED COURSES - COMPLETE A MINIMUM OF 32 UNITS

CLDDV 101	[1]	Principles and Practices of Teaching Young Children	3
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CHILD GROWTH AND DEVELOPMENT:

CLDDV 103	[1]	Child Growth and Development	3 OR
CLDDV 109	[1]	Child-Family-Community	3
CLDDV 111	[2]	Health, Safety, and Nutrition.....	3
CLDDV 125	[2]	Infant and Toddler Development	3
CLDDV 154	[3]	Adult Relationships & Mentoring in Schools.....	2
CLDDV 160	[3]	Atypical Development.....	3
CLDDV 163	[4]	Working with Children with Special Needs	3
CLDDV 167	[4]	Observation and Assessment.....	3
CLDDV 262	[4]	Diversity in Educational Settings.....	3

LAB PRACTICUM - COMPLETE A MINIMUM OF 3 UNITS

CLDDV 126	[4]	Inclusion Special Needs Practicum	2-5 OR
CLDDV 127BCD	[3]	Infant and Toddler Practicum	2-4 OR
CLDDV 128	[3]	Preschool Practicum	2-5

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT.....32-40

- Completing the Early Interventionist Assistant certificate along with an AS degree in Child Development qualifies a student to work at the Early Intervention Assistant II level of the California Early Start Personnel Model. The California Interagency Coordinating Council has recommended the California Early Start Personnel Model for the professional field of early intervention. The California Interagency Coordinating Council is the statewide advisory body for California's Early Start Program.

Literature & Language Arts

DEGREES, CERTIFICATES, & SKILLS RECOGNITIONS

Maurice McKinnon, Ed.D., Dean

East Campus
Founders Hall, Room 200
(209) 575-6149

INSTRUCTION IN:

English (ENGL)
English as a Second Language (ESL)
Spanish (SPAN)
French (FREN)
German (GERM)
Italian (ITAL)
Reading (READ)
Sign Language (SIGN)
Spelling (SPELL)

AWARDS IN:

English, AA
Language Studies, AA, UPAA
Spanish, AA

ADMINISTRATIVE SUPPORT STAFF

Amanda Cannon, Administrative Tech.

INSTRUCTIONAL SUPPORT STAFF

Mary Calderon, Instructional Support Assistant
Jacqueline Jordan, Instructional Support Assistant
Elmo Maragol, Instructional Support Assistant

English PROGRAM

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, fiction, and script writing. English majors choose to take survey, writing, and literature courses based upon their areas of interest, but they should include a balanced load of genre and survey courses. Many students who become English majors at four-year colleges and universities are required to take introductory survey courses in American and British literature (ENGL 135, ENGL 136, ENGL 137, and ENGL 138). However, prospective English majors and minors are strongly urged to discuss their plans with MJC counselors and English faculty advisors regarding the specific lower-division requirements at the four-year colleges and universities they plan to attend.

A.A. Degree: English

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in English will be able 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

DEGREE 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. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements below

DEGREE 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. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 6 UNITS

ENGL 102	[NP]	Advanced Composition & Introduction to Literature.....3
ENGL 103	[NP]	Advanced Composition and Critical Thinking.....3

REQUIRED COURSES - COMPLETE 3 UNITS

ENGL 163	[NP]	Introduction to Shakespeare.....3
ENGL 131	[NP]	Introduction to World Literature to 1500.....3
ENGL 132	[NP]	Introduction to World Literature from 1500 to Present.....3
ENGL 135	[NP]	Survey of American Literature to 1850.....3
ENGL 136	[NP]	Survey of American Literature: 1850 to Present.....3
ENGL 137	[NP]	Survey of English Literature to 18th Century.....3
ENGL 138	[NP]	Survey of English Literature: 18th Century - Present.....3

ELECTIVE COURSES - COMPLETE 11 UNITS

ENGL 105	[NP]	Creative Writing: Poetry.....3
ENGL 106	[NP]	Creative Writing: Short Fiction.....3
ENGL 108	[NP]	Creative Writing: Autobiography.....3
ENGL 109	[NP]	Creative Writing: Scriptwriting.....3
ENGL 112	[NP]	Introduction to the Novel and Short Story.....3
ENGL 114	[NP]	Introduction to Poetry.....3
ENGL 116	[NP]	Introduction to Drama.....3
ENGL 131	[NP]	Introduction to World Literature to 1500.....3
ENGL 132	[NP]	Introduction to World Literature from 1500 to Present.....3
ENGL 135	[NP]	Survey of American Literature to 1850.....3
ENGL 136	[NP]	Survey of American Literature: 1850 to Present.....3
ENGL 137	[NP]	Survey of English Literature to 18th Century.....3
ENGL 138	[NP]	Survey of English Literature: 1700 to the Present.....3
ENGL 151	[NP]	Introduction to Folklore.....3
ENGL 156	[NP]	The Bible as Literature -- The Hebrew Canon and Intertestamental Writings.....3
ENGL 157	[NP]	The Bible as Literature -- The New Testament.....3
ENGL 162	[NP]	History of Cinema.....3
ENGL 163	[NP]	Introduction to Shakespeare.....3
ENGL 168	[NP]	Adolescent Literature.....3
ENGL 169	[NP]	Children's Literature.....3
ENGL 171	[NP]	Introduction to African-American Literature.....3
ENGL 172	[NP]	Introduction to Chicano/a Literature.....3
ENGL 173	[NP]	Introduction to Latin American Literature.....3
ENGL 175	[NP]	Introduction to Women's Literature.....3
ENGL 176	[NP]	Introduction to Mexican Literature.....3
ENGL 179	[NP]	Introduction to Native American Literature, Mythology, and the Oral Tradition.....3

MINIMUM UNITS IN A.A. MAJOR 20

Language Studies PROGRAM

A.A. Degree: University Preparation, Emphasis in **Language Studies**

Students who complete the AA in University Preparation: Emphasis in Language Studies will enhance their communication abilities, cultural awareness, and critical thinking skills in English as well as one or two other languages.

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities associated with the University Preparation Pathway requirements, students who complete the Associate's Degree Emphasis in Language Studies will be able to:

1. *Converse in at least two languages.*
2. *Communicate in writing in at least two languages.*
3. *Read critically, interpret analytically, and write coherently in at least two languages.*
4. *Understand and demonstrate appreciation of cultural differences.*

EMPHASIS REQUIREMENTS

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

REQUIRED COURSES - COMPLETE 17 UNITS

COMPLETE 3 UNITS:

ENGL 103	Advanced Composition and Critical Thinking	3
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COMPLETE 14 UNITS IN ONE OR TWO LANGUAGES FROM THE FOLLOWING:

FREN 101	[NP]	French 1	5
FREN 102	[NP]	French 2	5
FREN 103	[NP]	French 3	5
FREN 104	[NP]	French 4	5
GERM 101	[NP]	German 1	5
GERM 102	[NP]	German 2	5
ITAL 101	[NP]	Italian 1	5
SIGN 125	[NP]	Beginning Communication with the Deaf	3
SIGN 126	[NP]	Intermediate Communication with the Deaf	3
SIGN 127	[NP]	Advanced Communication with the Deaf	3
SPAN 101	[NP]	Spanish 1	5
SPAN 102	[NP]	Spanish 2	5
SPAN 103	[NP]	Spanish 3	5
SPAN 104	[NP]	Spanish 4	5
SPAN 109	[NP]	Spanish for Spanish Speakers: Fundamentals	4
SPAN 110	[NP]	Spanish for Spanish Speakers: Intermediate	4

ELECTIVE COURSES - COMPLETE 3 UNITS

ENGL 102	[NP]	Advanced Composition and Introduction to Literature	3
ENGL 131	[NP]	Introduction to World Literature – To 1500	3
ENGL 132	[NP]	Introduction to World Literature – From 1500 To Present	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
SPCOM 130	[NP]	Intercultural Communication	3

MINIMUM UNITS IN EMPHASIS 20

Spanish PROGRAM

The Department of Spanish offers various courses that provide students with the foundation for Spanish language study. Knowledge of Spanish is highly desirable in the many fields, such as health, service, business, travel and interpreting. Beyond the immediate practical advantages of learning a foreign-language, there is also the profound personal enrichment that comes from first-hand knowledge of other cultures. Students majoring in Spanish have the opportunity to become acquainted with the history, literature, and art of the Spanish-speaking world. Students are urged to discuss their plans with faculty and counselors regarding the specific lower-division requirements at the four-year colleges and universities they plan to attend.

EXPECTED STUDENT LEARNING OUTCOMES

Upon the successful completion of the A.A. degree in Spanish at Modesto Junior College, students will be able to:

1. *Communicate orally in Spanish in real-life situations at an advanced high proficiency level.*
2. *Demonstrate proficiency in the comprehension of oral messages*
3. *Demonstrate proficiency in oral expression in Spanish.*
4. *Understand someone else speaking about a discipline-related topic and be able to engage that person in discussion.*
5. *Communicate in writing in Spanish at an advanced high proficiency level with minimal errors in grammar, spelling and the mechanics of writing.*
6. *Write clear and coherent essays in Spanish on various topics related to everyday situation and work.*
7. *Exhibit research skills for producing papers including familiarity with library resources and the ability to gather and synthesize information.*
8. *Exhibit the ability to properly quote, paraphrase, and summarize other texts.*
9. *Read critically, interpret analytically, and write coherently about literatures produced in Spanish.*
10. *Analyze and interpret a variety of literary and cultural texts.*
11. *Write clear and coherent essays in Spanish on literary topics.*
12. *Apply critical thinking skills as they read texts.*
13. *Interpret the use of rhetorical and literary techniques.*
14. *Understand and demonstrate appreciation of the cultural values of Spanish-speaking peoples.*
15. *Identify significant individuals and major historical events and developments within Spanish-speaking nations and cultures.*
16. *Analyze social, ethnic, and linguistic diversity in the Spanish-speaking world.*
17. *Compare and contrast the differences and similarities between the U.S. and the Spanish-speaking cultures.*

A.A. Degree: **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. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements below

REQUIRED PREPARATORY COURSES – COMPLETE 10 UNITS

SPAN 102	[1]	Spanish 2	5
SPAN 103	[1]	Spanish 3	5
SPAN 104	[1]	Spanish 4	5
SPAN 109	[2]	Spanish for Spanish Speakers 1	5
SPAN 110	[NP]	Spanish for Spanish Speakers 2	5

REQUIRED COURSES – COMPLETE 6 UNITS

SPAN 112	[NP]	Intro. to Chicano/a Literature	3
SPAN 173	[NP]	Survey of Latin American Literature	3

PROGRAMS IN **LITERATURE & LANGUAGE ARTS**

ELECTIVE COURSES – COMPLETE 6 UNITS

ENGL	172	[NP]	Introduction to Chicano/a Literature	3
ENGL	173	[NP]	Introduction to Latin American Literature	3
HIST	125	[NP]	History of Mexico	3
HIST	145	[NP]	History of Latin America	3
SOCIO	156	[NP]	Mexican Culture in the United States	3

MINIMUM UNITS IN A.A. MAJOR 22

Physical Education

DEGREES, CERTIFICATES, & SKILLS RECOGNITIONS

William Kaiser, EdD, Dean

East Campus
PE Office, Room 105
(209) 575-6269

INSTRUCTION IN:

Health Education (HE)
Recreation (REC)
Athletics (PE)
Physical Education
(PE, PEA, PEC, PEM, PEW, PEVM, PEVW)

AWARDS IN:

Physical Education, AA
Athletic Training/Sports Medicine, AS
University Preparation, Emphasis in Health and
Physical Education, AS

SUPPORT STAFF

Grace Condé, Administrative Secretary
Shamiran Pourellyas, Administrative Specialist

Athletic Training/ Sports Medicine PROGRAM

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

A.S. Degree: Athletic Training/Sports Medicine

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Athletic Training/Sports Medicine will be able to:

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

PROGRAM REQUIREMENTS

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements below. Courses should be selected with the assistance of an Athletic Training faculty advisor.

REQUIRED COURSES - COMPLETE 32 UNITS

PE	108	[NP]	Care and Prevention of Athletic Injuries	3
PE	111	[NP]	Application of Sports Medicine	3
ANAT	125	[NP]	Human Anatomy	5
CHEM	143	[NP]	Introductory College Chemistry	5
HE	101	[NP]	Emergency Response/CPR FPR	3
HE	110	[NP]	Healthful Living	3
PHYSO	101	[NP]	Introductory Human Physiology	5
PSYCH	101	[NP]	General Psychology	3
PE	141	[NP]	Supervision in Athletic Training	2 OR
PE	142	[2]	Supervision in Athletic Training 1	2 OR
PE	143	[3]	Supervision in Athletic Training 2	2 OR
PE	144	[4]	Supervision in Athletic Training 3	2

UNITS IN MAJOR **32**

Health & Physical Education PROGRAM

A.S. Degree: University Preparation, Emphasis in Health & Physical Education (p. 198)

Physical Education PROGRAM

A.A. Degree: Physical Education

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Physical Education will be able to:

1. Use effective written, electronic, and verbal communication techniques that demonstrate proficient research skills regarding physical activity, a clear, coherent writing style regarding physical activity, and proficient oral expression regarding physical activity.
2. Demonstrate competence in the major concepts and current research dealing with physical fitness and sports, demonstrating knowledge of major concepts regarding physical activity and demonstrating knowledge of journals, periodicals, and other sources of information regarding current research and sports strategies.
3. Apply critical thinking to utilize protocols regarding the safe design and monitoring of various parameters of physical activity, demonstrating the ability to properly select, attend, and design safe activities and demonstrating knowledge of evaluation, care, and prevention of sports injuries.
4. Synthesize the personal and socio-cultural aspects of sport and physical activity, demonstrating the ability to analyze and interpret trends found in sport as a microcosm of society and demonstrating knowledge of proper psychological process in sport performance and motor learning sequences found in skill development.
5. 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. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 15 UNITS

PE	100	[1]	Introduction to Physical Education	3
PE	108	[2,3]	Care and Prevention of Athletic Injuries	3
PE	109	[2,3,4]	Peak Performance Through Mental Training	3
PE	110	[1,3]	Officiating: Spring Sports	3 OR
PE	115	[2,4]	Officiating: Fall Sports	3
HE	101	[NP]	Emergency Response CPR FPR	3

ELECTIVE COURSES - COMPLETE 5 UNITS, WHICH MUST INCLUDE 1-5 UNITS OF ACTIVITY CLASSES FROM THE LIST PROVIDED

PE	101	[1,3]	Basketball Theory	1
PE	102	[1,3]	Offensive Football Theory	2
PE	103	[2,4]	Track and Field Theory	1
PE	104	[1,3]	Wrestling Theory	1

PE	105	[1,3]	Defensive Football Theory	2
PE	106	[1,3]	Offensive Baseball Theory	2
PE	107	[2,4]	Defensive Baseball Theory	2
PE	111	[3,4]	Application of Sports Medicine	3
PE	110	[1,3]	Officiating: Spring Sports	3
PE	113	[2,4]	Offensive/Defensive Softball Theory	2
PE	114	[1,3]	Cross Country Concepts	1
PE	115	[2,4]	Officiating: Fall Sports	3
PE	116	[1,3]	Football Team Play Concepts	2
PE	120	[2,4]	Sports and Society.....	3
PE	121	[1,3]	Coaching Effectiveness.....	3

PE ACTIVITY CLASSES

PEA	104	[NP]	Adapted Strength Development	1
PEA	106	[NP]	Functional Water Exercise.....	1
PEA	107	[NP]	Adapted Swimming	1
PEA	108	[NP]	Adapted Aquatics	1
PEA	119	[NP]	Adapted Sports.....	1
PEC	102	[NP]	Water Aerobics.....	½, 1
PEC	108	[NP]	Deep Water Aerobics	1
PEC	111	[NP]	Beginning Racquetball	1
PEC	112	[NP]	Intermediate Racquetball.....	1
PEC	118	[NP]	Bowling.....	1
PEC	120	[NP]	Hip Hop.....	1
PEC	122	[NP]	Modern Dance 1	1
PEC	123	[NP]	Modern Dance 2	1
PEC	124	[NP]	Modern Dance 3	1
PEC	126	[NP]	Jazz 1	1
PEC	128	[NP]	Aerobics	1
PEC	127	[NP]	Ballet 2.....	1
PEC	129	[NP]	Jazz 2	1
PEC	132	[NP]	Jazz 3 Intermediate/Advanced.....	1
PEC	139	[NP]	Ballet 3	1
PEC	146	[NP]	Ballet 4.....	1
PEC	133	[NP]	Ballet 1	1
PEC	140	[NP]	Exercise for Fitness.....	1
PEC	143	[NP]	Beginning Golf.....	1
PEC	144	[NP]	Intermediate Golf.....	1
PEC	147	[NP]	Gymnastics	½, 1
PEC	148	[NP]	Yoga for Better Health	1
PEC	150	[NP]	Intermediate Yoga for Better Health	½, 1
PEC	157	[NP]	Advanced Judo	1
PEC	159	[NP]	Spirit Leadership Training.....	½, 1
PEC	162	[NP]	Aikido 1 Basic	1
PEC	163	[NP]	Aikido 2.....	1
PEC	164	[NP]	Self-Defense	1
PEC	165	[NP]	Judo	1
PEC	166	[NP]	Intermediate Judo	½, 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.....	½, 1
PEC	191	[NP]	Power Lifting	1
PEC	195	[NP]	Weight Training.....	1
PEC	197	[NP]	Advanced Weight Training.....	1
PEM	108	[NP]	Baseball	½, 1
PEM	112	[NP]	Beginning Basketball.....	1
PEM	113	[NP]	Intermediate Basketball	½, 1
PEM	114	[NP]	Advanced Basketball	1
PEM	140	[NP]	Touch Football and Kanaki	½, 1
PEM	141	[NP]	Advanced Touch Football.....	½, 1
PEM	162	[NP]	Soccer.....	½, 1
PEM	196	[NP]	Advanced Wrestling.....	1
PEW	164	[NP]	Women's Indoor-Outdoor Soccer	½, 1
PEW	166	[NP]	Women's Self-Defense.....	½, 1
PEW	167	[NP]	Women's Beginning Judo.....	½, 1
PEW	180	[NP]	Women's Softball	½, 1
PEW	192	[NP]	Women's Weight Training	1
PEVM	100	[NP]	Varsity Baseball.....	3
PEVM	105	[NP]	Men's Varsity Basketball (Fall)	3
PEVM	106	[NP]	Men's Varsity Basketball (Spring)	1½
PEVM	110	[NP]	Men's Varsity Cross-Country.....	3
PEVM	115	[NP]	Varsity Football.....	3
PEVM	120	[NP]	Men's Varsity Golf.....	3
PEVM	122	[NP]	Men's Varsity Soccer.....	3
PEVM	125	[NP]	Men's Varsity Swimming and Diving.....	3
PEVM	130	[NP]	Men's Varsity Tennis.....	3
PEVM	135	[NP]	Men's Varsity Track-Field	3
PEVM	140	[NP]	Men's Varsity Water Polo	3
PEVM	145	[NP]	Varsity Wrestling.....	3
PEVW	100	[NP]	Women's Varsity Basketball (Fall).....	3
PEVW	101	[NP]	Women's Varsity Basketball (Spring).....	1½
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]	Women's Varsity Track and Field	3
PEVW	140	[NP]	Women's Varsity Volleyball	3
PEVW	145	[NP]	Women's Varsity Water Polo	3

MINIMUM UNITS IN A.A. MAJOR 20

Public Safety

DEGREES, CERTIFICATES, & SKILLS RECOGNITIONS

Pedro Mendez, Dean
Sierra Hall

John Sola, Coordinator
Regional Fire Training Center
1220 Fire Science Lane, Modesto
(209) 548-5706

INSTRUCTION IN:
Fire Science (FSCI)
Fire Technologies (FTECH)

AWARDS IN:
Emergency Medical Technician (SR)
Fire Academy (SR)
Fire Science (C), (AS)

SUPPORT STAFF
Erik Klevmyr, Fire Science Facility Technician
Gail Campbell, Administrative Specialist

Emergency Medical Technician (EMT) PROGRAM

ELIGIBILITY AND PREPARATION FOR EMT PROGRAM

- High school graduation or equivalent with transcripts on file in MJC Enrollment Services or
- High school student, 18 years of age or older, with a minimum GPA of 3.0, verified by transcripts on file in MJC Enrollment Services.
- Transcripts must be on file in MJC Enrollment Services prior to the first day of class.

PROGRAM REQUISITES

All of the requisites must be valid through the end of the course and the EMT certification examination.

EMS 350	First Responder with Health Care Provider CPR.....	3
CPR	A valid health care provider CPR card.	

Skills Recognition Award: Emergency Medical Technician

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

EXPECTED STUDENT LEARNING OUTCOMES

Students who complete the Skills Recognition Award for Emergency Medical Technician will be able to:

1. Pass the National Registry Exam for certification as an Emergency Medical Technician 1
2. Demonstrate compliance with regulations of the National Registry of Emergency Medical Technicians

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

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

EMS 390	[NP] Emergency Medical Technician 1	6
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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

Fire Academy PROGRAM

Skills Recognition Award: Fire Academy

The Fire Academy Skills Recognition Award verifies the satisfactory completion of the educational standards for Fire Fighter 1. The Academy does not meet the experience requirement for State Fire Marshal certification, but it does meet the educational and training requirements. Completion will be provided by the Technical Education division.

EXPECTED STUDENT LEARNING OUTCOMES

Students who complete the Skills Recognition Award for Fire Academy will be able to:

1. Demonstrate compliance with state Fire Training Requirements for Firefighter I.
2. Demonstrate compliance with National Fire Protection Association Standards.

REQUIRED PREPARATION

- Satisfactory completion of FSCI 301 and EMS 350 or EMS 390 with a grade of C or better
- Satisfactory completion of a physical agility test with a valid CPAT card.
- Physician's statement of student health

REQUIRED COURSE - COMPLETE 17 UNITS

FSCI 362	[2]	Basic Fire Academy	8
FSCI 363	[2]	Advanced Fire Academy	9

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

Fire Science PROGRAM

Certificate of Achievement: **Fire Science**

EXPECTED STUDENT LEARNING OUTCOMES

Students who complete the Certificate of Achievement in Fire Science will be able to:

1. Demonstrate compliance with all laws, regulations, codes, and standards that influence fire department operation.
 2. Demonstrate compliance with California State Fire Training Standards for Firefighter I.
 3. Explain the flow requirements for fire apparatus, diagraming a pump and plumbing schematic.
 4. Demonstrate the ability to respond safely and effectively to fire situations by explaining the requirements needed to respond to emergencies in private, city, state, and federal locations and describing the rank structure and job requirements for all positions.
 5. Explain minimum qualifications and entry-level skills for 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 a Certificate of Achievement, the student must complete the coursework as indicated below. Each course must be completed with a grade of C or better.

REQUIRED COURSE - COMPLETE 3 UNITS

FSCI	301	[1]	Fire Protection Organization.....	3
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ELECTIVE COURSES - COMPLETE 27 UNITS

FSCI	302	[2]	Fire Prevention Technology.....	3
FSCI	303	[2]	Fire Protection Equipment and Systems.....	3
FSCI	304	[2]	Building Construction for Fire Protection.....	3
FSCI	305	[1]	Fire Behavior and Combustion.....	3
FSCI	309	[NP]	Fire Management 2E.....	2
FSCI	311	[NP]	Rescue Systems 1.....	2
FSCI	312	[NP]	Fire Investigation 2A.....	2
FSCI	322	[4]	Fire Science Career Development/Promotions.....	3
FSCI	323	[4]	Fire Hydraulics.....	3
FSCI	327	[2]	Fire Apparatus and Equipment.....	3
FSCI	328	[4]	Investigation of Fires.....	3
FSCI	332	[3]	Fire Fighting Tactics and Strategy.....	3
FSCI	336	[3]	Rescue Practices.....	3
FSCI	337	[3]	Wildland Fire Control.....	3
FSCI	341	[NP]	Fire Command 1C: I-Zone Firefighting.....	2
FSCI	347	[NP]	Fire Prevention 1C.....	2
FSCI	348	[NP]	Public Fire Education 1.....	2
FSCI	350	[NP]	Fire Command 1A.....	2
FSCI	351	[NP]	Fire Command 1B.....	2
FSCI	352	[NP]	Training Instructor 1A.....	2
FSCI	353	[NP]	Training Instructor 1B.....	2
FSCI	354	[NP]	Fire Prevention 1A.....	2
FSCI	355	[NP]	Fire Prevention 1B.....	2
FSCI	356	[NP]	Fire Management 1.....	2
FSCI	357	[NP]	Fire Investigation 1.....	2
FSCI	362	[2]	Basic Fire Academy.....	8
FSCI	363	[2]	Advanced Fire Academy.....	9
FSCI	364	[NP]	Driver/Operator 1A.....	2
FSCI	367	[NP]	Fire Investigation 1B.....	2½
FSCI	368	[NP]	Fire Apparatus Driver/Operator 1B.....	2
FSCI	369	[NP]	Training Instructor 1C.....	2½

FSCI	371	[NP]	Fire Command 2A.....	2
FSCI	372B	[NP]	Fire Management 2B.....	2
FSCI	373	[NP]	Fire Instructor 2A.....	2 ½
FSCI	374	[NP]	Fire Instructor 2B.....	2
FSCI	399	[NP]	Independent Study/Special Problems 2 ½.....	2 ½
FTECH	301 XABC	[NP]	Incident Command Systems.....	½, 1, 2, 3
FTECH	310 XABC	[NP]	Rescue Systems and Operations.....	½, 1, 2, 3
EMS	350	[1]	First Responder with Health Care Provider CPR.....	3
EMS	380	[1]	Basic ECG Interpretation.....	3
EMS	389	[1]	Emergency Medical Technician 1 LAB.....	½
EMS	390	[1]	Emergency Medical Technician 1.....	6
EMS	391	[NP]	Emergency Medical Tech. 1 (Refresher).....	1½
NR	379	[NP]	Wildland Fire Control.....	1

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

A.S. Degree: **Fire Science**

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the A.S. Degree in Fire Science will be able to:

1. Demonstrate compliance with all laws, regulations, codes, and standards that influence fire department operation.
2. Demonstrate compliance with California State Fire Training Standards for Firefighter I.
3. Explain the flow requirements for fire apparatus, diagraming a pump and plumbing schematic.
4. Demonstrate the ability to respond safely and effectively to fire situations by explaining the requirements needed to respond to emergencies in private, city, state, and federal locations and describing the rank structure and job requirements for all positions.
5. Explain minimum qualifications and entry-level skills for 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. 100) or the University Preparation Pathway (p. 97) which include completion of the requirements for certificate of achievement in Fire Science.

MINIMUM UNITS IN AS MAJOR 30

Science, Mathematics & Engineering

DEGREES, CERTIFICATES, & SKILLS RECOGNITIONS

Brian Sanders, Dean

West Campus
Science Community Center, Room 134
(209) 575-6173

INSTRUCTION IN:

Anatomy (ANAT)
Anatomy & Physiology (AP)
Astronomy (ASTRO)
Biology (BIO)
Botany (BOT)
Chemistry (CHEM)
Earth Science (EASCI)
Engineering (ENGR)
Geology (GEOL)
Mathematics (MATH)
Meteorology (METEO)
Microbiology (MICRO)
Physics (PHYS)
Physiology (PHYSO)
Zoology (ZOO)

AWARDS IN:

University Preparation with Emphasis in:
Biological Sciences (AS)
Chemistry (AS)
Earth Sciences (AS)
Environmental Science (AS)
Health and Physical Education (AS)
Mathematics for Transfer, (AS-T)
Physics (AS)

SUPPORT STAFF

Sandra Vanwey, Admin. Secretary
Rachel Coffman, Admin. Assistant
Wendy Long, Admin. Assistant

INSTRUCTIONAL SUPPORT STAFF

Michael Garcia, Instructional Support Technician.
Denise Godbout-Avant, Instructional Support Technician
Devin Jones, Instructional Support Technician
Sarah Mesenhimer-Johnson, Instructional Support Specialist
Brian Stedjee, Instructional Support Technician

GREAT VALLEY MUSEUM STAFF

Molly Flemate, Museum Specialist
Tana Dennen, Museum Technician

Biological Sciences PROGRAM

A.S. Degree*: University Preparation, Emphasis in **Biological Sciences**

ABOUT THIS EMPHASIS

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

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the A.S. Degree in University Preparation, Biological Sciences the student will be prepared to

1. Demonstrate a working knowledge of the anatomy, physiology, and microbiology of the human body in order to enter the nursing program.
2. Succeed in the nursing board exams in sections related to these disciplines.

EMPHASIS REQUIREMENTS

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

REQUIRED COURSES – TAKE 14 UNITS

BIO	101	[NP]	Biological Principles.....	5
BOT	101	[NP]	General Botany.....	4
ZOOL	101	[NP]	General Zoology.....	4

ELECTIVE COURSES – TAKE 10 UNITS

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

CHEM	101	[NP]	General Chemistry 1.....	5
CHEM	102	[NP]	General Chemistry 2.....	5
MATH	134	[NP]	Elementary Statistics.....	5
MATH	171	[NP]	Calculus: First Course.....	5
MATH	172	[NP]	Calculus; Second Course.....	5
PHYS	142	[NP]	Mechanics, Heat, and Waves.....	5
PHYS	143	[NP]	Electricity, Magnetism, Optics, Atomic and Nuclear Structure.....	5

UNITS REQUIRED IN AREA OF EMPHASIS 23

Chemistry PROGRAM

A.S. Degree*: University Preparation, Emphasis in **Chemistry**

ABOUT THIS EMPHASIS

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

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn an Associate in arts degree in University Preparation, Emphasis in Chemistry will be able 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.

EMPHASIS REQUIREMENTS

To earn an Associate Degree with this emphasis, the student must complete the requirements detailed in the **University Preparation Pathway** (p. 97) which include completion of the requirements below. See advisor for selection of courses. Students who only meet requirements for the **Career Technical Education Pathway** will not be eligible for this award.

REQUIRED COURSES – COMPLETE 10 UNITS.

CHEM	101	[NP]	General Chemistry 1.....	5
CHEM	102	[NP]	General Chemistry 2.....	5

ELECTIVE COURSES – COMPLETE 10 UNITS

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

CHEM	112	[NP]	Organic Chemistry 1.....	5
CHEM	113	[NP]	Organic Chemistry 2.....	5
MATH	171	[NP]	Calculus: First Course.....	5
MATH	172	[NP]	Calculus: Second Course.....	5
MATH	173	[NP]	Calculus: Third Course.....	5
PHYS	142	[NP]	Mechanics, Heat, and Waves.....	5
PHYS	143	[NP]	Electricity, Magnetism, Optics, Atomic and Nuclear Structure.....	5

UNITS IN REQUIRED IN AREA OF EMPHASIS 20

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

Earth Sciences PROGRAM

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

ABOUT THIS EMPHASIS

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

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn an Associate in arts degree in University Preparation, Emphasis in Earth Sciences will be able to:

1. Successfully complete upper division coursework in mathematics.
2. Identify physical features of the Earth system and relate them to processes operating within the Earth system
3. Identify the basic rock-forming minerals, and the most common igneous, sedimentary and metamorphic rocks.
4. Analyze topographic and geologic maps for evidence of tectonic and erosional processes.
5. Identify and describe the properties of minerals, fossils, and rocks, and evaluate the tectonic and geologic environment that they formed in.
6. Assess and evaluate evidence concerning the origin of the Earth and Solar System, and the evolution of life and landscapes on Earth through time.
7. Identify and apply the vocabulary and principles of mechanics, wave theory, and thermodynamics to solve problems and explain natural phenomena.
8. Use the skills and concepts of differentiation and integration to solve applied problems in physics.
9. Effectively utilize the principles of chemistry including measurements and significant figures, chemical reactions, stoichiometry, gas laws and theory, thermodynamics, atomic structure and quantum mechanics, periodic properties, chemical bonding, molecular structure, intermolecular attractions and properties of liquids and solids, and properties of solutions

EMPHASIS REQUIREMENTS

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

REQUIRED COURSES: COMPLETE 23 UNITS

GEOL 161	[NP]	Physical Geology.....	4	OR
EASCI 161	[NP]	Earth Science	4	
GEOL 166	[NP]	Historical Geology.....	4	
PHYS 142	[NP]	Mechanics, Heat, & Waves	5	OR
PHYS 101	[NP]	General Physics: Mechanics	5	
MATH 171	[NP]	Calculus: First Course	5	
CHEM 101	[NP]	General Chemistry 1.....	5	

ELECTIVE COURSES: COMPLETE 8 UNITS

ASTRO 160	[NP]	Introduction to Modern Astronomy.....	3	
ASTRO 151	[NP]	Introduction to Astronomy Laboratory.....	1	
BIO 101	[NP]	Basic Biology.....	5	
BIO 111	[NP]	General Biology	4	OR
MATH 172	[NP]	Calculus: Second Course.....	5	
CHEM 102	[NP]	General Chemistry 2.....	5	
METEO 161	[NP]	Introduction to Meteorology.....	4	
NR 200	[NP]	Soils.....	4	

EASCI 162	[NP]	Introduction to Earth Science.....	4
PHYS 143	[NP]	Electricity, Magnetism, Optics, Atomic and Nuclear Structures...4	OR
PHYS 102	[NP]	General Physics: Waves, Thermodynamics, & Optics.....	5
ZOOL 101	[NP]	General Zoology.....	4
2-3 units of:			
GEOL 171	[NP]	Geology Field Studies.....	1/2 - 2
GEOL 174	[NP]	Geology Summer Field Studies.....	3

TOTAL UNITS IN AA MAJOR 31

Environmental Sciences PROGRAM

A.S. Degree*: University Preparation, Emphasis in Environmental Sciences

ABOUT THIS EMPHASIS

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

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn an Associate in arts degree in University Preparation, Emphasis in Environmental Sciences will be able to:

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

EMPHASIS REQUIREMENTS

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

REQUIRED COURSES – COMPLETE 18 UNITS.

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

UNITS REQUIRED IN AREA OF EMPHASIS 18

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

Health & Physical Education PROGRAM

A.S. Degree*: University Preparation, Emphasis in Health and Physical Education

Health Science draws from the biological, environmental, psychological, social, physical, and medical sciences to develop individual, group, institutional, community, and systemic strategies to improve health knowledge and attitudes as well as skills and behavior. Physical Education, also known as Kinesiology, is the scientific study of human movement, addressing physiological, mechanical, and psychological mechanisms.

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities associated with the University Preparation Pathway requirements, students who complete the Associate's Degree Emphasis in Health and Physical Education will be able to:

1. Demonstrate a working knowledge of the anatomy, physiology, and microbiology of the human body in order to enter the nursing program
2. Demonstrate a working knowledge of the anatomy and physiology of the human body in order to enter a university level physical education program.
3. Succeed on the nursing board exams in sections related to these disciplines.

To earn an Associate in Science Degree in this major, the student must complete the requirements detailed in the University Preparation Pathway which include completion of the requirements below. See advisor for selection of courses.

REQUIRED COURSES: COMPLETE 19 UNITS

ANAT 125	[NP]	Human Anatomy	5
BIO 111	[NP]	General Biology	4 or
BIO 116	[NP]	Biology: A Human Perspective.....	4
CHEM 143	[NP]	Introductory College Chemistry	5
PHYSO 101	[NP]	Introductory Human Physiology.....	5

TOTAL UNITS **19**

*This University Prep Degree serves two distinct students populations: The student seeking a 4 year University Degree in Physical Education/Kinesiology and the student who has completed the Nursing Pathway prerequisites and wishes to receive an AS degree prior to entering an ADN Program.

**In the past, ANAT 125 and PHYSO 101 were only 4 units. Students may use these courses as substitutes for those above but must achieve a minimum of 18 units total. If needing an additional unit, students may use MICRO 101 or CHEM 144. Students should visit the Science and Mathematics division office to petition for these substitution options.

Mathematics for Transfer PROGRAM

This program is designed to prepare students who wish to transfer to a California State University or University of California campus to complete a bachelor's degree in mathematics or a related field of study. It will provide training to master the techniques of integration and differentiation and use these techniques to model real-world applications.

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 or visit www.ASSIST.org for more information on university admission and transfer requirements.

AS-T Degree: Mathematics for Transfer

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn an Associate in science degree in Mathematics will be able to:

1. Successfully complete upper division coursework in mathematics.
2. Master the techniques of integration and differentiation.
3. Use these techniques to model real-world applications.

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

REQUIRED COURSES: COMPLETE 25 UNITS:

MATH 171	[NP]	Calculus: First Course.....	5
MATH 172	[NP]	Calculus: Second Course.....	5
MATH 173	[NP]	Calculus: Third Course.....	5
MATH 174	[NP]	Introduction to Linear Algebra and Differential Equations.....	5
PHYS 101	[NP]	General Physics: Mechanics	5

TOTAL UNITS IN AS-T MAJOR..... **25**

*Note: Double counting courses in GE and the major is permissible
MJC Guidance and Activities Requirement is not required for the Associate in Science in Mathematics for Transfer Degree.*

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

Physics PROGRAM

A.S. Degree*: University Preparation, Emphasis in **Physics**

This emphasis represents the coursework expected in the first two years of a university degree program in physics. Universities generally require the entire physics sequence and all four mathematics courses. Students can meet one or two of the math courses by taking Advanced Placement courses in high school followed by scores of 3, 4 or 5 on AP tests. This emphasis requires completion of only 10 units of calculus coursework, but students are advised that the university will require the other 10 as well. Students are also advised that to complete the AS Degree in University Preparation, they must complete the entire CSU-GE or IGETC transfer package. However, the large number of units in the major plus those in the GE package may be more than what is accepted by the university for transfer. Students are encouraged to consult with their counselor and their transfer institution as to what is expected.

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities associated with the University Preparation Pathway requirements, students who complete the Associate's Degree in University Preparation: Emphasis in Physics will be able to:

1. Solve problems and predict outcomes in nature using physical laws.
2. Use the scientific method to collect and analyze data in forming conclusions and to verify physical principles through measurement and experimentation.
3. State and apply physical concepts to explain phenomena encountered in our everyday world.

EMPHASIS REQUIREMENTS

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

REQUIRED COURSES: COMPLETE 15 UNITS

PHYS	101	[2]	General Physics: Mechanics	5
PHYS	102	[3]	General Physics: Waves, Thermodynamics, & Optics	5
PHYS	103	[4]	General Physics: Electricity, Magnetism, & Modern Physics...	5

ELECTIVE COURSES: COMPLETE 10 UNITS

MATH	171	[1]	Calculus: First Course	5
MATH	172	[2]	Calculus: Second Course	5
MATH	173	[3]	Calculus: Third Course	5
MATH	174	[4]	Introduction to Linear Algebra & Diff Equations	5

TOTAL UNITS IN EMPHASIS 25

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

Technical Education

DEGREES, CERTIFICATES, & SKILLS RECOGNITIONS

Pedro Mendez, Dean

West Campus
Sierra Hall
(209) 575-6332

INSTRUCTION IN:

Welding (WELD)
Machine Tool Technology (MACH)
Electronics Technology (ELTEC)
Autobody (AUBDY)
Automotive Technology (AUTECH)
Computer Electronics (CMPET)
Sheet Metal (SM)

AWARDS IN:

Autobody/Collision Repair, C
Automotive Maintenance, C
Autobody Refinishing, AS, SR
Automotive Technician, AS, C
CNC Operator, SR
CNC Programmer, SR
Computer Electronics, AS, C
Fabrication Technician, C
Gas Tungsten Arc Welding, SR
Gas Metal Arc Welding SR
Industrial Electronics, AS, C
Machine Tool Technology, AS, SR
Pipe Welding, SR
Shielded Metal Arc Welding, SR
Welding, AS, SR

SUPPORT STAFF

Norma Gallardo, Program Specialist
Elizabeth Hondoy, Program Technician

Elizabeth Orozco-Wittke,
Manager, International Contract Programs
Macario Ramirez
Instructional Support Specialist

Judy Gonzales, Administrative Secretary
Marissa Cahn, Program Assistant
Marla Uliana, Program Specialist
Araceli Zarate, Program Specialist

Autobody Collision Repair PROGRAM

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

Certificate of Achievement: Autobody/Collision Repair

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

EXPECTED STUDENT LEARNING OUTCOMES

Upon satisfactory completion of this program, the student will be able to:

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

PROGRAM REQUIREMENTS

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

REQUIRED COURSES - COMPLETE 19 UNITS

AUBDY 301	[1]	Automotive Collision Repair 1.....	5
AUBDY 302	[2]	Automotive Collision Repair 2.....	5
AUBDY 303	[3]	Automotive Collision Repair 3.....	4
AUBDY 321	[1]	Automotive Spray Refinishing 1.....	2
AUBDY 322	[2]	Automotive Spray Refinishing 2.....	3

TOTAL UNITS 19

Autobody Refinishing PROGRAM

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.

EXPECTED STUDENT LEARNING OUTCOMES

Upon satisfactory completion of this program, the student will be able to:

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

PROGRAM REQUIREMENTS

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

REQUIRED COURSES - COMPLETE 10 UNITS

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

TOTAL UNITS 10

A.S. Degree: Autobody/Refinishing

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Autobody/Refinishing will be able to:

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

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

REQUIRED COURSES - COMPLETE 26½ UNITS

AUTEC 311	[1]	Basic Automotive Systems.....	4
AUBDY 301	[1]	Automotive Collision Repair 1.....	5
AUBDY 302	[2]	Automotive Collision Repair 2.....	5
AUBDY 303	[3,4]	Automotive Collision Repair 3.....	4
AUBDY 321	[1,2]	Automotive Spray Refinishing 1.....	2
AUBDY 322	[2,3,4]	Automotive Spray Refinishing 2.....	3
AUTEC 323	[2]	Steering, Suspension, and Alignment.....	3½

ELECTIVE COURSES - COMPLETE A MINIMUM OF 3½ UNITS

AUTEC 321	[3,4]	A5: Braking Systems.....	4
AUTEC 368	[3,4]	A6: Automotive Electricity i.....	3½

MINIMUM UNITS IN A.S. MAJOR 30

Automotive Technology PROGRAM

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.



Certificate of Achievement: Automotive Technician

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Automotive Technician will be able to:

1. Demonstrate compliance with current automotive industry safety and environmental standards.
 2. Perform maintenance and repair operations in accordance with ASE standards.
- To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COMPETENCIES

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

REQUIRED COURSES - COMPLETE 11 UNITS

AUTEC 311	[1]	Basic Automotive Systems	4
ELTEC 208	[2,3]	World of Electricity and Electronics	3 OR
MACH 301	[1]	Machine Shop I	3 OR
MACH 211D	[1]	Machine Tool Technology 1	4
AUTEC 368	[2]	A6: Auto Electric/Electronic Systems 1	3½

ELECTIVE COURSES - COMPLETE 27 UNITS

AUTEC 315	[2,3,4]	Engine Rebuilding	3½
AUTEC 317	[3,4]	Automotive Air Conditioning	3½
AUTEC 319	[3]	A8: Engine Performance	3½
AUTEC 320	[4]	L1: Advanced Engine Performance	4
AUTEC 321	[2,3,4]	A5: Brakes Systems	4
AUTEC 322	[2,3,4]	A4: Steering, Suspension, & Alignment	4
AUTEC 323	[2,3,4]	A2: Automatic Transmissions & Transaxles	3½
AUTEC 324	[2,3,4]	A3: Manual Transmissions & Drive Axles	4
AUTEC 369	[3]	A6: Automotive Electricity 2	4
AUTEC 399	[2]	Independent Study	2

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

A.S. Degree: Automotive Technician

EXPECTED STUDENT LEARNING OUTCOMES

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.

EXPECTED STUDENT LEARNING OUTCOMES

Upon satisfactory completion of this program, the student will be able 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 38½ total units of required and elective courses and complete the Career and Technical Education Pathway requirements.

REQUIRED COURSES - COMPLETE 14½ 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	3½
AUTEC 369	[2,3]	A6: Automotive Electricity 2	4

ELECTIVE COURSES: COMPLETE 18 UNITS

AUTEC 211	[2,3]	Introduction to Alternative Fuels and Advanced Technology Vehicles	3
AUTEC 317	[2]	Auto Heating & Air Conditioning	3½
AUTEC 319	[2,3]	A8: Engine Performance	3½
AUTEC 320	[3,4]	L1: Advance Engine Performance	4
AUTEC 321	[2]	A5: Brakes Systems	3½
AUTEC 322	[2]	A4: Steering, Suspension and Align	3½
ELTEC 208	[2]	The World of Electricity and Electronics	3

TOTAL UNITS 38½

Automotive Maintenance PROGRAM

Certificate of Achievement: Automotive Maintenance

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Maintenance Mechanic will be able to:

1. Demonstrate compliance with current automotive industry safety and environmental standards.
 2. Perform maintenance and repair operations in accordance with ASE standards.
- To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COMPETENCIES

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

REQUIRED COURSES - COMPLETE 11 UNITS

AUTEC 311	[1]	Basic Automotive Systems	4
AUTEC 368	[2,3]	A6: Auto Electric/Electronic Systems 1l	3½
ELTEC 208	[1]	The World of Electricity & Electronics	3 OR
MACH 211D	[3]	Machine Tool Tech 1	4 OR
MACH 301	[1]	Machine Shop I	3

ELECTIVE COURSES - COMPLETE 19 UNITS

AUTEC 315	[3,4]	Engine Rebuilding	3½
AUTEC 317	[3,4]	A7: Auto Heating and Air Conditioning	3½
AUTEC 319	[3]	A8: Engine Performance	3½
AUTEC 321	[2,3,4]	A5: Brakes Systems	4
AUTEC 322	[2,3,4]	A4: Steering, Suspension, & Alignment	4
AUTEC 323	[2,3,4]	A2: Automatic Transmissions & Transaxles	3½
AUTEC 324	[2,3,4]	A3: Manual Transmissions & Drive Axles	4
AUTEC 369	[2,3]	A6: Automotive Electricity 2	4

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

Computer Electronics PROGRAM

Certificate of Achievement: Electronics Technology-Computer Electronics

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Computer Electronics will be able to:

1. Work successfully in the computer service & repair and telecommunication industries.
 2. Perform basic computer hardware and telecommunication installations and repairs in accordance with commonly accepted industry practices.
- To earn a Certificate of Achievement, the student must complete the coursework below. All required courses must be completed with a C or better.

REQUIRED COURSES - COMPLETE 16 UNITS

ELTEC 208*	[1]	The World of Electricity and Electronics	3
CMPET 212	[1]	Digital Principles and Circuits	3
CMPET 214	[2,3,4]	Microprocessor Programming and Interfacing	4
CMPET 206	[2,3,4]	Personal Computer Assembling, Upgrading, and Repair	3
CMPCSC 204	[2]	Introduction to Programming	3

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

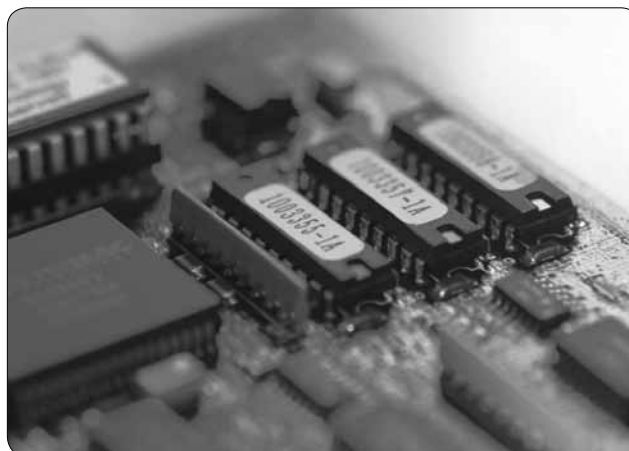
ELECTRONICS AREA

CMPET 210	[3,4]	Intermediate Personal Computer Servicing	3
CMPET 232	[NP]	Introduction to Programmable Logic Controllers	2
CMPET 234	[2,3,4]	Advanced Topics in Programmable Logic Controllers	2
CMPET 269	[2,3,4]	Network+ Certification Training Lab	1
ELTEC 221	[2,3or4]	Instrumentation Devices and Systems	3

COMPUTER AREA

CMPCSC 205	[3]	Problem Solving and Programming 1	3
CMPCSC 213	[3,4]	Programming with Visual Basic	4
CMPCSC 241	[4]	Assembly Language Programming	4
CMPCSC 263	[3,4]	Networking Essentials	4
CMPCSC 264	[3,4]	Windows Server OS	3
CMPCSC 276	[4]	Introduction to Data Warehousing	3
CMPCSC 278	[3,4]	Spreadsheet Software	3

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



A.S. Degree: **Computer Electronics**

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Computer Electronics will be able 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. 100) or the University Preparation Pathway (p. 97) 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
CMPET 214	[2,3,4]	Microprocessor Programming and Interfacing	4
CMPSC 204	[2]	Introduction to Programming	3
ELTEC 208	[1]	World of Electricity and Electronics	3

ELECTIVE COURSES- COMPLETE 14 UNITS, AT LEAST 6 IN EACH AREA

ELECTRONICS AREA

CMPET 210	[NP]	Intermediate Personal Computer Servicing	3
CMPET 232	[NP]	Introduction to Programmable Logic Controllers	2
CMPET 234	[2,3,4]	Advanced Topics in Programmable Logic Controllers	2
CMPET 269	[2,3,4]	Network+ Certification Training Lab	1
ELTEC 221	[2,3,4]	Instrumentation Devices and Systems	3

COMPUTER SCIENCE AREA

CMPSC 205	[3]	Problem Solving and Programming 1	3
CMPSC 213	[3-4]	Programming with Visual Basic	4
CMPSC 241	[4]	Assembly Language Programming	4
CMPSC 263	[3-4]	Networking Essentials	4
CMPSC 264	[3-4]	Windows Server OS	3
CMPSC 276	[4]	Introduction to Data Warehousing	3
CMPSC 278	[3-4]	Spreadsheet Software	3

MINIMUM UNITS IN A.S. MAJOR 30

Industrial Electronics PROGRAM

The Electronics Technology Program prepares students to enter industry as Electronics Technicians or to transfer to a four-year university program. An Industrial Electronics study option and a Computer Electronics study option are available. Students receive theoretical and laboratory instruction in electrical/electronic principles, analog and digital devices, electrical/electronic systems, computer hardware, industrial equipment and control systems. Consult with an Electronics Advisor for selection of courses and options.

Classes in Electronics Technology are offered in theoretical and manipulative skills leading to the associate degree. Students may also select a program for transfer to a state university.

Certificate of Achievement: Industrial Electronics

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Industrial Electronics will be able 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 though Assessment	

REQUIRED COURSES - COMPLETE 26½ UNITS

ELTEC 205	[1]	Electronics Fabrication and Assembly Techniques	3
ELTEC 208	[1]	The World of Electricity and Electronics	3
ELTEC 212	[2]	Digital Principles and Circuits	3
ELTEC 221	[3]	Instrumentation Devices and Systems	3
ELTEC 223	[2]	Industrial Electrical Components & Control Devices	3
ELTEC 226	[3]	Motors, Controls and Controllers	3
ELTEC 229	[3,4]	Commercial and Industrial Wiring	3½
ELTEC 232	[2]	Introduction to Programmable Logic Controllers	2
ELTEC 234	[3]	Advanced Topics in Programmable Logic Controllers	2
ELTEC 265	[1]	Troubleshooting Techniques	1

ELECTIVE COURSES - COMPLETE 9 UNITS

ELTEC 214	[2,3,4]	Microprocessor Programming and Interfacing	4
INTEC 202	[NP]	Fundamentals of Industrial Technology	2
INTEC 203	[1]	Industrial Mechanical/Pneumatic Components	3
CMPET 206	[2,3,4]	Personal Computer Assembling, Upgrading, and Repairing	3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT..... 35½

A.S. Degree: **Industrial Electronics**

EXPECTED STUDENT LEARNING OUTCOMES

- In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Industrial Electronics will be able to:
 1. *Work successfully in the power utility, building trades, and/or manufacturing industry.*
 2. *Demonstrate compliance with current engineering and electrical safety and environmental standards.*
 3. *Perform basic troubleshooting and electrical-oriented repairs and installations in accordance with industry standards.*

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

REQUIRED COURSES - COMPLETE 26½ UNITS

ELTEC 205	[1]	Electronics Fabrication & Assembly Techniques	3
ELTEC 208	[1]	The World of Electricity and Electronics	3
ELTEC 212	[2]	Digital Principles and Circuits	3
ELTEC 221	[3]	Instrumentation Devices and Systems	3
ELTEC 223	[2]	Industrial Electrical Components & Control Devices	3
ELTEC 226	[3]	Motors, Controls and Controllers	3
ELTEC 229	[4]	Commercial & Industrial Wiring	3½
ELTEC 232	[2]	Introduction to Programmable Logic Controllers	2
ELTEC 234	[3]	Advanced Topics in Programmable Logic Controllers	2
ELTEC 265	[1]	Troubleshooting	1

ELECTIVE COURSES - COMPLETE 4 UNITS

ELTEC 214	[2,3,4]	Introduction to Microprocessors & Digital Systems	4
CMPET 206	[2]	Personal Computer Assembling, Upgrading, and Repairing	3
INTEC 202	[NP]	Fundamentals of Industrial Technology	2
INTEC 203	[1]	Industrial Mechanical/Pneumatic Components	3

MINIMUM UNITS IN A.S. MAJOR 30½

Machine Tool Technology PROGRAM

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.

Skills Recognition Award: **CNC Operator**

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Skills Recognition Award in CNC Operator will be able 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
MACH 223	[2]	Advanced CNC Machine Operations	2

TOTAL UNITS FOR SKILLS RECOGNITION AWARD..... 6

Skills Recognition Award: **CNC Programmer**

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Skills Recognition Award in CNC Programmer will be able 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 radius edge within one hour.*

PROGRAM REQUIREMENTS

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

REQUIRED COURSES – COMPLETE 8 UNITS

MACH 18	[2]	Introduction to CNC Lathe Programming	2
MACH 219	[1]	Introduction to CNC Mill Programming	2
MACH 220	[2]	CNC Machine Tool Programming	2
MACH 222	[NP]	CNC Machine Operations	2

ELECTIVE COURSES: COMPLETE 2 UNITS

MACH 310	Advanced Topics in Machining	1
MACH 311	CNC Programming with Macros	1
MACH 312	4 Axis Mill Programming and Operation	1

MACH 315	3D Part Programming for CNC.....	1
TOTAL UNITS FOR SKILLS RECOGNITION AWARD.....		10

Certificate of Achievement: Machine Tool Technology 1

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Machine Tool Technology 1 will be able to:

1. Demonstrate compliance with current machine shop safety and environmental regulations.
 2. Perform mill, lathe, drill press, precision grinding, measurement, and basic CNC operations in accordance with industry recognized and accepted practices.
- To earn a Skills Recognition 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 E	[1]	Machine Tool Technology	5
MACH 212 E	[2]	Machine Tool Technology	5
MACH 213 C	[3or4]	Machine Tool Technology	3
MACH 395ABC	[3or4]	Advanced Machine Tool Technology Laboratory	1-3 OR
WELD 200	[NP]	Arc & Gas Welding.....	3

TOTAL REQUIRED UNITS FOR SKILLS RECOGNITION 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 program, the student will be able to:

3. demonstrate compliance with current machine shop safety and environmental regulations.
4. perform operations using manual mills, lathes, drill press, precision grinders, conduct basic precision measurement, and program and operate basic CNC lathes and milling machines in accordance with industry recognized and accepted practices.

PROGRAM REQUIREMENTS

To earn a Certificate of Achievement, student must complete the 27 required units and 3 units from the choice of elective courses.

REQUIRED COMPETENCIES FOR CERTIFICATE

MATH 20	Pre-Algebra	5
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REQUIRED COURSES - COMPLETE 27 UNITS

MACH 211E	[1]	Machine Tool Technology 1	5
MACH 212E	[2]	Machine Tool Technology 2	5
MACH 213D	[3]	Machine Tool Technology 3	4
WELD 200	[1]	Arc & Gas Welding.....	3
MACH 219	[2]	Introduction to CNC Mill Programming.....	2
MACH 220	[3]	CNC Machine Tool Programming	2
MACH 222	[2]	CNC Machine Operations.....	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

WELD 204	[2]	Gas Metal Arc Welding (G.M.A.W) & Flux Core Arc Welding (F.C.A.W)	3
WELD 206	[2]	Gas Tungsten Arc Welding (G.T.A.W).....	3

TOTAL UNITS 30

A.S. Degree: Machine Tool Technology

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Machine Tool Technology will be able to:

1. Demonstrate compliance with current machine shop safety and environmental regulations.
 2. Perform mill, lathe, drill press, precision grinding, measurement, and basic CNC operations in accordance with industry recognized and accepted practices.
- To earn an associate in arts 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 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.

MINIMUM UNITS IN A.S. MAJOR 30

Maintenance Machinist PROGRAM

Skills Recognition Award: Maintenance Machinist 1

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Skills Recognition Award in Maintenance Machinist 1 will be able 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
MACH 302	[2]	Machine Shop 2.....	3
WELD 200	[NP]	Arc & Gas Welding.....	3

TOTAL UNITS FOR SKILLS RECOGNITION AWARD 9

Certificate of Achievement: Maintenance Machinist 2

The Machine Tool Technology program is designed to provide training in the operation of traditional manual as well as computer operated machine tools used to produce the mechanical components used in all industrial applications. Students will receive instruction the use of lathes, milling machines, precision grinders as well as the theory and practice of precision dimensional measurement. This series of courses is intended to address the needs of those who are interested in advancing the skills developed in the Maintenance Machinist 1 certificate program.

EXPECTED STUDENT LEARNING OUTCOMES

Upon satisfactory completion of this program, the student will be able to:

1. Demonstrate compliance with current machine shop safety and environmental regulations.
2. Perform manual machine shop operations in accordance with industry recognized and accepted practices.

PROGRAM REQUIREMENTS

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

REQUIRED COMPETENCIES FOR CERTIFICATE

MATH 20	Pre-Algebra	5 OR
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REQUIRED COURSES – COMPLETE 18 UNITS

MACH 301	[1]	Machine Shop 1.....	3
MACH 302	[2]	Machine Shop 2.....	3
MACH 303	[3]	Machine Shop 3.....	3
WELD 200	[2, 3]	Arc & Gas Welding.....	3
MACH 357	[3, 4]	Machine Trades Print Reading.....	2
MACH 395ABC	[3, 4]	Advanced Mach Tool Technology Lab	1 - 3

ELECTIVE COURSES - COMPLETE 3 UNITS

WELD 204	[2, 3]	Gas Metal Arc Welding(G.M.A.W) & Flux Core Arc Welding (F.C.A.W)	3
WELD 206	[2, 3]	Gas Tungsten Arc Welding (G.T.A.W).....	3

TOTAL UNITS FOR CERTIFICATE 21

Welding PROGRAM

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.A./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.

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

Skills Recognition Award: Design & Fabrication

EXPECTED STUDENT LEARNING OUTCOMES

Upon satisfactory completion of this program, the student will be able to:

1. Develop and interpret various types of fabrication prints.
2. Develop and interpret weld and welding symbols.
3. Use the required welding and sheet metal equipment, perform typical metal fabrication operations.

PROGRAM REQUIREMENTS

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

REQUIRED COURSES – COMPLETE 12 UNITS

WELD 200	[1]	Arc & Gas Welding.....	3
SM 331	[1]	Sheet Metal and Installation 1	3
WELD 204	[2]	Gas Metal Arc Welding(G.M.A.W) & Flux Core Arc Welding (F.C.A.W).....	3
WELD 325	[3]	Design and Fabrication Processes	3

TOTAL UNITS 12

Skills Recognition Award: **Gas Metal Arc Welding and Gas Tungsten Arc Welding**

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.A./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.

PROGRAM LEARNING OUTCOMES

Upon satisfactory completion of this program, the student will be able to:

1. select GTAW tungsten electrodes and GMAW/FCAW electrode wires required to complete typical welding procedures.
2. make appropriate set up adjustments on GTAW/GMAW equipment required to complete typical welding procedures.
3. fit up and prepare typical weld joint designs according to industry codes and standards.
4. using GTAW/GMAW equipment, perform welding procedures and create welds that meet industry codes and standards.

PROGRAM REQUIREMENTS

- To earn a Skills Recognition Award, the student must meet/ complete the required competencies and complete the following coursework. Each course must be completed with a C or better.

REQUIRED COMPETENCIES FOR SKILLS RECOGNITIONS

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

REQUIRED COURSES - COMPLETE 9 UNITS

WELD 200	[1]	Arc & Gas Welding	3
WELD 204	[2]	Gas Metal Arc Welding(G.M.A.W) & Flux Core Arc Welding (F.C.A.W)	3
WELD 206	[2]	Gas Tungsten Arc Welding (G.T.A.W.)	3

TOTAL UNITS..... 9

Skills Recognition Award: **Shielded Metal Arc Welding**

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Skills Recognition Award in Shielded Metal Arc Welding will be able to:

1. Demonstrate compliance with current welding industry safety and environmental regulations.
 2. Perform AWS and ASME welding operations in accordance with structural, manufacturing, and food processing industries' recognized and accepted practices.
- To earn a Skills Recognition Award, the student must meet/complete the required competencies, and complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES – COMPLETE 8 UNITS

WELD 200	[1]	Arc and Gas Welding	3
WELD 300	[2]	Intermediate Welding.....	3
WELD 399	[2]	Independent Study.....	2

TOTAL UNITS FOR SKILLS RECOGNITION AWARD..... 8

Skills Recognition Award: **Pipe Welding**

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Skills Recognition Award in Pipe Welding will be able to:

1. Demonstrate compliance with current welding industry safety and environmental regulations.
 2. Perform basic pipe welding operations in accordance with structural, manufacturing, and food processing industries' recognized and accepted practices.
- To earn a Skills Recognition Award, the student must meet/complete the required competencies, and complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COMPETENCIES

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

MATH 20	[NP]	Pre-Algebra	5 OR
		Eligibility for MATH 70 by MJC assessment process	

REQUIRED COURSES - COMPLETE 10 UNITS

WELD 200	[1]	Arc and Gas Welding	3
WELD 300	[2]	Intermediate Welding.....	3
WELD 340	[3]	Pipe Welding.....	3
WELD 399A	[2,3]	Independent Study.....	1

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

A.S. Degree: **Welding**

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate's Degree in Welding will be able to:

1. Demonstrate compliance with current welding industry safety and environmental regulations.
2. Perform welding operations in accordance with structural, manufacturing, and food processing industries' recognized and accepted practices.

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

REQUIRED COURSES - COMPLETE 27 UNITS

MACH 211C	[NP]	Machine Tool Technology 1	3
SM 331	[2]	Sheet Metal & Installation 1.....	3
WELD 200	[1]	Arc & Gas Welding	3
WELD 204	[2]	Gas Metal Arc (MIG) Flux Core Arc (FCAW)	3
WELD 206	[2]	Gas Tungsten Arc Welding (TIG)	3
WELD 300	[2]	Intermediate Welding	3
WELD 325	[3]	Design and Fabrication Processes	3
WELD 340	[3]	Pipe Welding	3
WELD 399A	[2,3,4]	Independent Study/Special Problems	1
WELD 399B	[2,3,4]	Independent Study/Special Problems	2

MINIMUM UNITS IN A.S. MAJOR 27

General Studies

DEGREES, CERTIFICATES, & SKILLS RECOGNITIONS

Counseling Services

MJC Counseling Center
Lorena Dorn, Dean
Student Services Building Room 228
(209) 575-6080

AWARDS IN:

General Studies, Emphasis in Natural Sciences, AA
General Studies, Emphasis in Social and Behavioral Sciences, AA
General Studies, Emphasis in Humanities, AA
General Studies, Emphasis in Language and Rationality, AA

SUPPORT STAFF

Donna Yarnal, Administrative Secretary
Elaine Thornton, Administrative Assistant

General Education PROGRAM

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.

EXPECTED STUDENT LEARNING OUTCOMES

Upon completion of the CSU-GE pattern at Modesto Junior College, the student will be able 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.
2. Analyzing the development of self and making plans for lifelong learning.
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.

EXPECTED STUDENT LEARNING OUTCOMES

Upon completion of the IGETC pattern at Modesto Junior College, the student will be able 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.
2. Analyzing the development of self and making plans for lifelong learning.
3. Evaluating the impact of daily decisions on life and health.

General Studies PROGRAM

The Associate in arts in General Studies with Emphasis provides an opportunity for you to earn an Associate in arts (AA) degree in a comprehensive area of study. This degree is intended for students who may not be planning to transfer to a university in the near future.

The General Studies degree is intended to provide both breadth and depth of education. Breadth is achieved by completion of the 18-unit MJC-GE Pattern for the Associate's Degree. Depth is achieved when you complete an additional 18-unit Emphasis in one of four areas: Natural Sciences, Social and Behavioral Sciences, Humanities, or Language and 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.

A.A. Degree: General Studies, Emphasis in Humanities

EXPECTED LEARNING OUTCOMES

In addition to demonstrating the abilities associated with the General Education requirements, students who complete the Associate's Degree in General Studies with an Emphasis in Humanities will be able 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 71 of the 2011-2012 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	3
ART 120	Basic Drawing 1	3
ART 124	Color and Design 1	3
ART 140	Sculpture 1	3
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	3
ART 170	Basic Photography	3
ART 181&182	Basic Photography 1 and Basic Photography 2	1½ & 1½
CMPGR 201	Animation: A Global View of Art in Motion	3
ENGL 102	Advanced Composition & Introduction to Literature	3
ENGL 112	Introduction to the Novel and Short Story	3
ENGL 114	Introduction to Poetry	3
ENGL 116	Introduction to Drama	3
ENGL 131	Introduction to World Literature to 1500	3
ENGL 132	Introduction to World Literature (1500 to Present)	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 18th Century	3
ENGL 138	Survey of English Literature: 1700 - 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	4
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	Introduction to Native American Literature, Mythology, and the Oral Tradition	3
FILM 153	Contemporary Film	3
FILM 154	Movies with a Message	3
FILM 155	The Documentary Film	3
FREN 51	Introductory French 1	3
FREN 101	French 1	5
FREN 102	French 2	5
FREN 103	French 3	5
FREN 104	French 4	5
GERM 51	Introduction to Practical German 1	3
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 1 (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 121	Music Theory 1	3
MUST 122	Music Theory 2	3
MUST 123	Music Theory 3	3
MUST 124	Music Theory 4	3
PE 194	Introduction to World Dance	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 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 154	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	5
SPAN 104	Spanish 4	5
SPAN 109	Spanish for Spanish Speakers	5
SPAN 110	Spanish for Spanish Speakers	5
SPAN 112	Introduction to Chicano/a Literature	3
SPAN 173	Survey of Latin American Literature	3
SPCOM 120	Oral Reading/Interpretation	3
SPCOM 122	Introduction to Readers' Theatre	3
SPCOM 123	Storytelling	3
SPCOM 124	Advanced Readers' Theatre	3
THETR 100	Introduction to Theatre Arts	3
THETR 120	Oral Reading/Interpretation	3
THETR 122	Introduction to Readers' Theatre	3
THETR 123	Storytelling	3
THETR 124	Advanced Readers' Theatre	3
THETR 160	Fundamentals of Acting	3
THETR 161	Intermediate Acting	3
THETR 194	Introduction to World Dance	3

UNITS IN EMPHASIS 18

**A.A. Degree: General Studies,
Emphasis in Language & Rationality**

ABOUT THIS EMPHASIS

Courses in language and rationality are those that study English composition, communication, and analytical thinking. Students will develop the principles and applications of language toward logical thought, clear and precise expression, and critical evaluation of communication whatever

PROGRAMS OFFERED

PROGRAMS IN GENERAL STUDIES

symbol system the students use.

1. Follow the Career and Technical Education Pathway for associate degree on page 71 of the 2011–2012 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 and complete 6 units in each discipline. Students may not double-count units with General Education course

EXPECTED LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the A.A. Degree in General Studies, Emphasis in Language and Rationality will be able 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

AGEC 225	Agriculture Computer Applications	3
BUSAD 210	Business Communication	3
CMPGR 265	Multimedia on the World Wide Web	3
CMPSC 103	Symbolic Logic	3
CMPSC 201	General Computer Literacy	3
CMPSC 203	Technical Computer Literacy	3
CMPSC 205	Problem Solving and Programming 1	4
CMPSC 213	Programming with Visual BASIC	3
CMPSC 219	Discrete Structures for Computer Science	4
CMPSC 241	Assembly Language Programming	4
CMPSC 261	Problem Solving and Programming 2	4
CMPSC 264	Windows Server OS	3
CMPSC 275	Database Management Systems	3
CMPSC 276	Web Database Development	3
CMPSC 291	Windows Programming with Visual C++	4
ENGL 103	Advanced Composition & Critical Thinking	3
LIBR 100	Research Concepts and Practice	3
MATH 90	Intermediate Algebra	5
MATH 101	Mathematical Ideas and Applications	3
MATH 105	Structure of Mathematics 1	4
MATH 106	Structure of Mathematics 2	4
MATH 111	Applied College Algebra	3
MATH 121	Pre-Calculus 1	5
MATH 122	Pre-Calculus 2	5
MATH 130	Finite Mathematics	3
MATH 134	Elementary Statistics	5
MATH 138	Calculus for Business and Social Sciences	3
MATH 171	Calculus: First Course	5
MATH 172	Calculus: Second Course	5
MATH 173	Calculus: Third Course	5
MATH 174	Introduction to Linear Algebra and Differential Equations	5
PHILO 103	Symbolic Logic	3
PHILO 105	Reasoning	3
PHILO 107	Philosophy of Science	3
SPCOM 100	Fundamentals of Public Speaking	3
SPCOM 102	Introduction to Human Communication	3
SPCOM 104	Argumentation	3
SPCOM 106	Group & Organizational Communication	3
SPCOM 107	Introduction to Debate	3
SPCOM 110	Persuasion	3
SUPR 106	Group & Organizational Communication	3

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 100 of the 2012–2013 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.

EXPECTED LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Learning Outcomes, students who complete the A.A. in General Studies, Emphasis in Natural Sciences will be able 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

AG 376	Basic Science and Laboratory Techniques	3
ANAT 125	Human Anatomy	5
ANSC 200	Introduction to Animal Science	3
ANTHR 101	Physical Anthropology	3
ANTHR 105	Physical Anthropology Laboratory	1
AP 50	Elementary Human Anatomy-Physiology	3
AP 150	Integrative Anatomy & Physiology	5
ASTRO 151	Introduction to Astrophysics Lab	1
ASTRO 160	Introduction to Modern Astronomy	3
ASTRO 160/161	Introduction to Modern Astronomy with Lab	3/1
BIO 50	Basic Biology	3
BIO 101	Biological Principles	5
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 142	Pre-General Chemistry	3
CHEM 143	Introductory College Chemistry	5
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	The World of Electricity and Electronics	3
ENSCI 108	Environmental Conservation	3
FDNTR 219	Nutrition	3
GEOG 101	Physical Geography	3
GEOLOG 160	Introduction to Geology	3
GEOLOG 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
NR 200	Soils	4
NR 215	Wildlife Production	3
NR 220	Introductory Forestry	3
PE 124	Introduction to Kinesiology.....	3
PHYS 101	General Physics: Mechanics	5
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	5
PHYS 143	Electricity, Magnetism, Optics, Atomic and Nuclear Structure.....	4
PHYS 160	Descriptive Introduction to Physics	3
PHYS 165	Introductory Physics	3
PHYS 180	Conceptual Physics: A Hands-on Approach	3
PHYSO 101	Introductory Human Physiology	5
PHYSO 103	Introduction to Neuroscience	3
PLSC 200	Introduction to Plant Science	3
PLSC 230	Fruit Science	3
PSYCH 103	Introduction to Neuroscience	3
ZOOL 101	General Zoology	4

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. 100) which include completion of the requirements below

EXPECTED LEARNING OUTCOMES

In addition to demonstrating the abilities associated with the University Preparation Pathway requirements, students who complete the Associate's Degree Emphasis in Social & Behavioral Science will be able to:

1. Describe and demonstrate the methodology and approach employed in the study of Behavioral and Social Sciences
2. Critically examine local, national, and global issues as they pertain to the study of Behavioral and Social Sciences

REQUIRED COURSES - COMPLETE 18 UNITS

- For this non-transfer emphasis, complete a minimum of 18 units from the list below. Of that 18 units, select two disciplines and complete 6 units in each discipline. Students may not double-count units with General Education courses.

ADJU 201	Introduction to Administration of Justice	3
ADJU 202	Principles/Procedures of Justice	3
ADJU 203	Concepts of Criminal Law.....	3
ADJU 217	Substance Abuse	3
ADJU 232	Juvenile Justice Procedures	3
ADJU 235	Introduction to Corrections	3
AGEC 210	Elements of Agricultural Economics	3
AGGE 146	Agriculture, Environment & Society	3
ANTHR 102	Cultural Anthropology	3
ANTHR 104	Linguistic Anthropology	3
ANTHR 130	Archaeology and Cultural Prehistory.....	3

ANTHR 140	Magic, Witchcraft, and Religion	3
ANTHR 150	Native People of North America	3
BUSAD 240	Principles of Management	3
CLDDV 103	Child Growth and Development	3
CLDDV 160	Atypical Development.....	3
CLDDV 262	Diversity in Educational Settings	3
ECON 101	Economic Principles: Macroeconomics	3
ECON 102	Economic Principles: Microeconomics	3
ECON 115	Economic History of the United States	3
ENSC 110	California Water.....	3
GEOG 102	Cultural Geography	3
GEOG 104	California Geography	3
GEOG 105	Economic Geography	3
GEOG 110	World Regional Geography	3
HIST 101	History of the United States to 1877	3
HIST 102	History of the United States since 1865	3
HIST 104	Western Civilization to 1650.....	3
HIST 105	Western Civilization Since 1650.....	3
HIST 106	World Civilization to the 16th Century.....	3
HIST 107	World Civilization from the 16th Century	3
HIST 112	Twentieth Century America	3
HIST 113	Social and Cultural History of the United States prior to the 20th Century	3
HIST 115	Economic History of the United States	3
HIST 116	Women in American History.....	3
HIST 119	Social and Cultural History of 20th Century America	3
HIST 125	History of Mexico	3
HIST 128	History of the American Far Western Frontier	3
HIST 129	History of California	3
HIST 145	History of Latin America.....	3
HIST 154	African Americans through the 19th Century.....	3
HIST 155	African Americans in 20th and 21st Centuries	3
HUMSR 101	Introduction to Human Services	3
HUMSR 114	Death and Dying	3
HUMSR 142	Introduction to Psychosocial Rehabilitation	3
HUMSR 143	Psychosocial Rehabilitation Practice	3
POLSC 101	American Politics	3
POLSC 102	The Constitution and the Rights of Americans	3
POLSC 110	International Relations	3
POLSC 111	War and Peace: From Lenin to Al Qaeda	3
POLSC 120	California Politics and Problems	3
POLSC 130	Political Theory.....	3
POLSC 131	American Political Thought	3
POLSC 140	Comparative Politics	3
PSYCH 51	Psychology in Everyday Life	3
PSYCH 101	General Psychology	3
PSYCH 104	Social Psychology	3
PSYCH 105	Abnormal Psychology	3
PSYCH 111	Psychology of Gender	3
SOCIO 101	Introduction to Sociology	3
SOCIO 102	Social Problems in United States	3
SOCIO 125	Sociology of the Family	3
SOCIO 150	Ethnicity and Culture in America	3
SOCIO 154	African-American Cultures and Communities	3
SOCIO 156	Mexican Culture in the United States	3
SOCSC 105	Women's Studies	3
SOCSC 110	Introduction to Education	3
SPCOM 103	Interpersonal Communication.....	3
SPCOM 130	Intercultural Communication	3

UNITS IN EMPHASIS..... 18

**COURSES
DIVIDER
PAGE**