I. APPROVAL OF ORDER OF AGENDA

II. APPROVAL OF MINUTES  
December 4, 2012

III. COURSE NOTIFICATION AGENDA

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Effective</th>
<th>Rationale for Expedited Approval</th>
<th>Program Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 349BCD</td>
<td>Work Experience</td>
<td>2-4</td>
<td>Summer 2013</td>
<td>To ensure accuracy of Datatel records. No course outline has existed for this course. Shells are to be created, then inactivated in CurricUNET.</td>
<td>Stand Alone</td>
</tr>
<tr>
<td>ARCH 399ABCD</td>
<td>Independent Study/Special Problems</td>
<td>1-4</td>
<td>Summer 2013</td>
<td>To ensure accuracy of Datatel records. No course outline has existed for this course. Shells are to be created, then inactivated in CurricUNET.</td>
<td>Stand Alone</td>
</tr>
<tr>
<td>DAIN 312</td>
<td>Warehousing/Dry and Refrigerated</td>
<td>1</td>
<td>Summer 2013</td>
<td>To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.</td>
<td>1. Dairy Industry A.S. Degree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. Dairy Industry Technician Certificate of Achievement</td>
</tr>
<tr>
<td>MUST 103</td>
<td>Music, Birth to K: Theory and Practice</td>
<td>3</td>
<td>Summer 2013</td>
<td>To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog. This course was created in Datatel and the catalog to replace MUSIC 176 when the Music department created a new course numbering system. Because these courses were not given new course IDs in the course numbering conversion project, it was not clear whether the Music department planned to inactivate them, so this discrepancy occurred. CurricUNET has no record of MUST 103. The Music and Child Development program faculty agree the intention is to inactivate the CLDDV/MUST courses in all systems.</td>
<td></td>
</tr>
</tbody>
</table>
Program Impact:
1. Child Development Master Teacher Certificate, 6-Unit “Music” option (as CLDDV 293)

MUST 106 Music, Birth to K: Application 3
Effective: Summer 2013 Expedited
Rationale for Expedited Approval: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog. This course was created in Datatel and the catalog to replace MUSIC 177 when the Music department created a new course numbering system. Because these courses were not given new course IDs in the course numbering conversion project, it was not clear whether the Music department planned to inactivate them, so this discrepancy occurred. CurricUNET has no record of MUST 103. The Music and Child Development program faculty agree the intention is to inactivate the CLDDV/MUST courses in all systems.

INACTIVATE:
Program Impact:
1. Child Development Master Teacher Certificate, 6-Unit “Music” option (as CLDDV 294)

IV. COURSE CONSENT AGENDA
V. COURSE DISCUSSION AGENDA
INACTIVATIONS

CMPSC 270 Understanding Data Communications 3
Effective: Summer 2013 Expedited
Rationale for Expedited Approval: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.

INACTIVATE:
Program Impact:
Stand Alone

CMPSC 801 Data Base Management System Workshop 0
Effective: Summer 2013 Expedited
Rationale for Expedited Approval: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.

INACTIVATE:
Program Impact:
Stand Alone

CMPSC 803 Spreadsheet Workshop 0
Effective: Summer 2013 Expedited
Rationale for Expedited Approval: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.

INACTIVATE:
Program Impact:
Stand Alone
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Effective</th>
<th>Rationale for Expedited Approval</th>
<th>Program Impact</th>
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<tbody>
<tr>
<td>CMPSC 805</td>
<td>Word Processing Workshop</td>
<td>0</td>
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<td>To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.</td>
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<tr>
<td>INTDS 120</td>
<td>Color Theory and Application</td>
<td>3</td>
<td>Summer 2013</td>
<td>Expedited!</td>
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<tr>
<td>INTDS 130</td>
<td>Fabrics for Interiors</td>
<td>3</td>
<td>Summer 2013</td>
<td>Expedited!</td>
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</tr>
<tr>
<td>INTDS 140</td>
<td>Rendering and Rapid Visualization</td>
<td>3</td>
<td>Summer 2013</td>
<td>Expedited!</td>
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<tr>
<td>INTDS 145</td>
<td>Fundamentals of Lighting Design</td>
<td>3</td>
<td>Summer 2013</td>
<td>Expedited!</td>
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</tbody>
</table>
### INTDS 190 Sustainable and Green Design
**Effective:** Summer 2013  
**Rationale for Expedited Approval:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.

**NACTIVATE:**

**Program Impact:**
1. Certificate of Achievement: Interior Design  
2. Interior Design A.A. Degree  
3. Interior Design A.S. Degree

### INTDS 200 Interior Design Fundamentals
**Effective:** Summer 2013  
**Rationale for Expedited Approval:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.

**NACTIVATE:**

**Program Impact:**
1. Certificate of Achievement: Interior Design  
2. Interior Design A.A. Degree  
3. Interior Design A.S. Degree

### INTDS 201 Housing Concepts
**Effective:** Summer 2013  
**Rationale for Expedited Approval:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.

**NACTIVATE:**

**Program Impact:**
1. Certificate of Achievement: Interior Design  
2. Interior Design A.A. Degree  
3. Interior Design A.S. Degree

### INTDS 202 Period/Contemporary Furniture
**Effective:** Summer 2013  
**Rationale for Expedited Approval:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.

**NACTIVATE:**

**Program Impact:**
1. Certificate of Achievement: Interior Design  
2. Interior Design A.A. Degree  
3. Interior Design A.S. Degree

### INTDS 204 Interior Environment
**Effective:** Summer 2013  
**Rationale for Expedited Approval:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.

**NACTIVATE:**

**Program Impact:**
1. Certificate of Achievement: Interior Design  
2. Interior Design A.A. Degree  
3. Interior Design A.S. Degree
## INTDS 205 Commercial Facility Planning
**Effective:** Summer 2013
**Expedited:**
**Rationale for Expedited Approval:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.
**INACTIVATE:**
**Program Impact:**
1. Certificate of Achievement: Interior Design
2. Interior Design A.A. Degree
3. Interior Design A.S. Degree

## INTDS 220 Interior Finishes Construction Materials
**Effective:** Summer 2013
**Expedited:**
**Rationale for Expedited Approval:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.
**INACTIVATE:**
**Program Impact:**
1. Certificate of Achievement: Interior Design
2. Interior Design A.A. Degree
3. Interior Design A.S. Degree

## INTDS 235 Space Planning
**Effective:** Summer 2013
**Expedited:**
**Rationale for Expedited Approval:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.
**INACTIVATE:**
**Program Impact:**
1. Certificate of Achievement: Interior Design
2. Interior Design A.A. Degree
3. Interior Design A.S. Degree

## INTDS 260 Textiles For Fashion and Interiors
**Effective:** Summer 2013
**Expedited:**
**Rationale for Expedited Approval:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.
**INACTIVATE:**
**Program Impact:**
1. Certificate of Achievement: Interior Design
2. Interior Design A.A. Degree
3. Interior Design A.S. Degree

## INTDS 270 Business & Professional Practices
**Effective:** Summer 2013
**Expedited:**
**Rationale for Expedited Approval:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.
**INACTIVATE:**
**Program Impact:**
1. Certificate of Achievement: Interior Design
2. Interior Design A.A. Degree
3. Interior Design A.S. Degree
<table>
<thead>
<tr>
<th>INTDS 298</th>
<th>Special Topics in Interior Design</th>
<th>1</th>
<th>Effective: Summer 2013 Expedited</th>
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<tr>
<td>Rationale for Expedited Approval: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.</td>
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**INACTIVATE**

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<tr>
<td>1. Certificate of Achievement: Interior Design</td>
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<td>2. Interior Design A.A. Degree</td>
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<td>3. Interior Design A.S. Degree</td>
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<table>
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<tr>
<th>INTDS 299</th>
<th>Independent Study/Special Problems</th>
<th>1-3</th>
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<td>Stand Alone</td>
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<table>
<thead>
<tr>
<th>INTDS 349</th>
<th>Work Experience</th>
<th>1-4</th>
<th>Effective: Summer 2013 Expedited</th>
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<td>Rationale for Expedited Approval: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.</td>
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**INACTIVATE**

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<th>Program Impact:</th>
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<tbody>
<tr>
<td>Stand Alone</td>
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</table>

<table>
<thead>
<tr>
<th>INTDS 399</th>
<th>Independent Study/Special Problems</th>
<th>1-4</th>
<th>Effective: Summer 2013 Expedited</th>
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</thead>
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<td>Rationale for Expedited Approval: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.</td>
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**INACTIVATE**

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<th>Program Impact:</th>
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<tr>
<td>Stand Alone</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MATH 88</th>
<th>Algebra with Applications</th>
<th>3</th>
<th>Effective: Summer 2013 Expedited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rationale for Expedited Approval: Math 88 was created several years ago but has never been taught. The math department inactivated several other courses that are not being taught in order for the catalog to be cleaned up and present an accurate list of current offerings to our students. But Math 88 was stuck in the approval queue and unalterable at the time. The department requests that the inactivation of Math 88 be expedited in order to remove it from the 2013-14 catalog and present an accurate picture to our students.</td>
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</tr>
</tbody>
</table>

**INACTIVATE**

<table>
<thead>
<tr>
<th>Program Impact:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stand Alone</td>
</tr>
</tbody>
</table>
MDAST 352 Medical Coding/CPT 3
Effective: Summer 2013 Expedited
Rationale for Expedited Approval: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.
INACTIVATE
Program Impact:
Stand Alone

MDAST 353 Medical Coding/ICD 3
Effective: Summer 2013 Expedited
Rationale for Expedited Approval: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.
INACTIVATE
Program Impact:
Stand Alone

MDAST 354 Intermediate Medical Coding/ICD9CM 3
Effective: Summer 2013 Expedited
Rationale for Expedited Approval: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.
INACTIVATE
Program Impact:
Stand Alone

NURWE 362 Work Experience-Nursing 3
Effective: Summer 2013 Expedited
Rationale for Expedited Approval: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.
INACTIVATE
Program Impact:
1. Associate Degree Nursing Program Curriculum (for RN) A.S. Degree

NURWE 385 Work Experience-Vocational Nursing 1 4
Effective: Summer 2013 Expedited
Rationale for Expedited Approval: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.
INACTIVATE
Program Impact:
Stand Alone

UPDATE

PLACEMENT OF COURSES IN DISCIPLINES:

BUSAD 200 Spreadshiiit Skills for Financial Accounting 2
Modify: Disciplines
Proposed Discipline(s): ACCOUNTING, BUSINESS EDUCATION
Rationale for Disciplines: “BUSAD 200 is a course which requires expertise in both accounting and Excel Spreadsheet Software. The discipline selected for this course requires an educational background accounting.”
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Modify: Disciplines Proposed Discipline(s)</th>
<th>Rationale for Disciplines</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAD 203</td>
<td>Computer Accounting</td>
<td>3</td>
<td>ACCOUNTING, BUSINESS EDUCATION</td>
<td>“BUSAD 203 is a course that covers expertise in accounting and accounting software. The discipline selected for this course requires an educational background in accounting.”</td>
</tr>
<tr>
<td>BUSAD 208</td>
<td>Introduction to International Business</td>
<td>3</td>
<td>BUSINESS, BUSINESS EDUCATION, MANAGEMENT, MARKETING</td>
<td>“BUSAD 208 is a course that covers an overview of international business. The disciplines selected for this course require an educational background in business administration and management.”</td>
</tr>
<tr>
<td>BUSAD 209</td>
<td>Import/Export Fundamentals</td>
<td>3</td>
<td>BUSINESS, BUSINESS EDUCATION, MANAGEMENT, MARKETING</td>
<td>“BUSAD 209 is a course that covers the procedures involved in importing and exporting product in the business environment. The disciplines selected for this course require an educational background in business and management.”</td>
</tr>
<tr>
<td>BUSAD 218</td>
<td>Business Law</td>
<td>4</td>
<td>ACCOUNTING, BUSINESS, LAW, MANAGEMENT</td>
<td>“BUSAD 218 is a course that covers the legal aspects of business in society. The disciplines selected for this course require an educational background in the elements taught in the business law class.”</td>
</tr>
<tr>
<td>BUSAD 240</td>
<td>Principles of Management</td>
<td>3</td>
<td>BUSINESS, BUSINESS EDUCATION, MANAGEMENT</td>
<td>“BUSAD 240 is a course that covers the management aspects of business in society. The disciplines selected for this course require an educational background in the elements taught in the management class.”</td>
</tr>
<tr>
<td>BUSAD 245</td>
<td>Principles of Marketing</td>
<td>3</td>
<td>BUSINESS, BUSINESS EDUCATION, MANAGEMENT, MARKETING</td>
<td>“BUSAD 245 is a course that covers marketing aspects of business. The disciplines selected for this course require an educational background in business and marketing.”</td>
</tr>
<tr>
<td>BUSAD 248</td>
<td>Introduction to Business</td>
<td>3</td>
<td>BUSINESS, BUSINESS EDUCATION, MANAGEMENT</td>
<td>“BUSAD 248 is a course that covers the general introductory aspects of business. The disciplines selected for this course require an educational background in the elements taught in the business course.”</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
<td>Disciplines</td>
<td>Rationale for Disciplines</td>
</tr>
<tr>
<td>-------------</td>
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<td>------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>BUSAD 249</td>
<td>Business Internship</td>
<td>4</td>
<td>ACCOUNTING, BANKING AND FINANCE, BUSINESS, BUSINESS EDUCATION, MANAGEMENT, MARKETING, OFFICE TECHNOLOGIES</td>
<td>“BUSAD 249 is a course that covers the oversight of students in a work environment in the various areas of business. The disciplines selected for this course require an educational background in the elements within business.”</td>
</tr>
<tr>
<td>BUSAD 274</td>
<td>Human Resources Management</td>
<td>3</td>
<td>BUSINESS, MANAGEMENT</td>
<td>“BUSAD 274 is a course that covers personnel aspects of business. The disciplines selected for this course require an educational background in business and human resource management.”</td>
</tr>
<tr>
<td>BUSAD 300</td>
<td>Machine Calculations</td>
<td>2</td>
<td>ACCOUNTING, BUSINESS EDUCATION</td>
<td>“BUSAD 300 is an applications course that teaches the use of a desk top ten-key calculator. The disciplines selected for this course require an educational background Business education and Accounting.”</td>
</tr>
<tr>
<td>BUSAD 310</td>
<td>Bookkeeping I</td>
<td>3</td>
<td>ACCOUNTING, BUSINESS EDUCATION</td>
<td>“BUSAD 310 is a course that covers the basic accounting cycle. The disciplines selected for this course require an educational background in the fundamentals of accounting.”</td>
</tr>
<tr>
<td>BUSAD 319</td>
<td>Payroll Accounting</td>
<td>3</td>
<td>ACCOUNTING</td>
<td>“BUSAD 319 is a course that covers the business payroll practice and procedures. The discipline selected for this course requires an educational background in accounting and payroll.”</td>
</tr>
<tr>
<td>BUSAD 320</td>
<td>Bookkeeping 2</td>
<td>3</td>
<td>ACCOUNTING</td>
<td>“BUSAD 320 is a course that covers more advanced topics of bookkeeping. The disciplines selected for this course require an educational background accounting and bookkeeping.”</td>
</tr>
<tr>
<td>BUSAD 331</td>
<td>Beginning Computer Accounting Software</td>
<td>1</td>
<td>ACCOUNTING</td>
<td>“BUSAD 331 is a course that covers the application of accounting software. The disciplines selected for this course require an educational background in Accounting.”</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Modify: Disciplines</td>
<td>Proposed Discipline(s)</td>
<td>Rationale for Disciplines</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>---------------------</td>
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<tr>
<td>BUSAD 332</td>
<td>Intermediate Computer Accounting</td>
<td>Disciplines</td>
<td>ACCOUNTING</td>
<td>“BUSAD 332 is a course that covers more advanced features of accounting software. The disciplines selected for this course require an educational background in Accounting.”</td>
</tr>
<tr>
<td>BUSAD 333</td>
<td>Computer Accounting Software</td>
<td>Disciplines</td>
<td>ACCOUNTING</td>
<td>“BUSAD 333 is a course that covers the basic and advanced applications of accounting software. The disciplines selected for this course require an educational background in Accounting.”</td>
</tr>
<tr>
<td>BUSAD 336</td>
<td>Income Tax Accounting</td>
<td>Disciplines</td>
<td>ACCOUNTING</td>
<td>“BUSAD 336 is a course that covers individual and small business taxation. The discipline selected for this course requires an educational background in accounting and tax.”</td>
</tr>
<tr>
<td>BUSAD 358</td>
<td>Sales and Advertising Promotion</td>
<td>Disciplines</td>
<td>BUSINESS, BUSINESS EDUCATION, MANAGEMENT, MARKETING</td>
<td>“BUSAD 358 is a course that covers personal selling and advertising. The disciplines selected for this course require an educational background in business, marketing and management.”</td>
</tr>
<tr>
<td>BUSAD 364</td>
<td>Total Quality Management</td>
<td>Disciplines</td>
<td>BUSINESS, BUSINESS EDUCATION, MANAGEMENT</td>
<td>“BUSAD 364 is a course that covers a variety of quality management issues in the international economy. The disciplines selected for this course require an educational background in business or management.”</td>
</tr>
<tr>
<td>BUSAD 377</td>
<td>Human Resources in Business</td>
<td>Disciplines</td>
<td>BUSINESS, MANAGEMENT</td>
<td>“BUSAD 377 is a course that covers the human relations aspects in business. The disciplines selected for this course require an educational background in business and management.”</td>
</tr>
<tr>
<td>OFADM 201</td>
<td>Intermediate Keyboarding 1</td>
<td>Disciplines</td>
<td>OFFICE TECHNOLOGIES</td>
<td>“OFADM 201 requires an instructor who has a background in keyboarding methodology in order to enable the student to gain the skills necessary for keyboarding speed and development and document creation. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.”</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<td>OFADM 202</td>
<td>Intermediate Keyboarding 2</td>
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<td><strong>Proposed Discipline(s):</strong> OFFICE TECHNOLOGIES</td>
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<td></td>
<td><strong>Rationale for Disciplines:</strong> “OFADM 202 requires an instructor who has a background in keyboarding methodology in order to enable the student to gain the skills necessary for keyboarding speed and development and document creation. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.”</td>
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<td>OFADM 203</td>
<td>Intermediate Keyboarding 3</td>
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<td><strong>Proposed Discipline(s):</strong> OFFICE TECHNOLOGIES</td>
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<td><strong>Rationale for Disciplines:</strong> “OFADM 203 requires an instructor who has a background in keyboarding methodology in order to enable the student to gain the skills necessary for keyboarding speed and development and document creation. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.”</td>
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<td>OFADM 302</td>
<td>Beginning Document Processing</td>
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<td><strong>Rationale for Disciplines:</strong> “OFADM 302 requires an instructor who has a background in keyboarding methodology in order to enable the student to gain the skills necessary for keyboarding speed and development and document creation. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.”</td>
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<td><strong>Proposed Discipline(s):</strong> OFFICE TECHNOLOGIES</td>
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<td><strong>Rationale for Disciplines:</strong> “OFADM 301 requires an instructor who has a background in keyboarding methodology in order to enable the student to gain the skills necessary for keyboarding speed and development. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.”</td>
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<tr>
<td>OFADM 303</td>
<td>Keyboarding for Speed an accuracy</td>
<td>0.5</td>
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<td><strong>Modify: Disciplines</strong></td>
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<td></td>
<td><strong>Proposed Discipline(s):</strong> OFFICE TECHNOLOGIES</td>
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<td><strong>Rationale for Disciplines:</strong> “OFADM 303 requires an instructor who has a background in keyboarding methodology in order to enable the student to gain the skills necessary for keyboarding speed and development. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.”</td>
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<tr>
<td>OFADM 304</td>
<td>Professional English for Business</td>
<td>3</td>
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<td><strong>Modify: Disciplines</strong></td>
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<td></td>
<td><strong>Proposed Discipline(s):</strong> OFFICE TECHNOLOGIES</td>
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<td></td>
<td><strong>Rationale for Disciplines:</strong> “OFADM 304 requires an instructor who has a strong background in grammar, punctuation, and proofreading used in the business environment in order to enable the student to gain and apply the skills necessary for effective editing, rewriting, and punctuation of business documents. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.”</td>
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<tr>
<td>OFADM 305</td>
<td>Records Management</td>
<td>3</td>
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<td><strong>Modify: Disciplines</strong></td>
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<td></td>
<td><strong>Proposed Discipline(s):</strong> OFFICE TECHNOLOGIES</td>
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<td><strong>Rationale for Disciplines:</strong> “OFADM 305 requires an instructor who has a background in records management and database software in order to enable the student to gain the skills necessary for effective record and document organization. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.”</td>
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<td>Course Code</td>
<td>Course Title</td>
<td>Credit Hours</td>
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<tr>
<td>OFADM 311</td>
<td>Business Editing and Proofreading</td>
<td>3</td>
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<td></td>
<td><strong>Proposed Discipline(s):</strong> OFFICE TECHNOLOGIES</td>
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<td></td>
<td><strong>Rationale for Disciplines:</strong> “OFADM 311 requires an instructor who has a strong background in grammar, punctuation, and proofreading used in the business environment in order to enable the student to gain and apply the skills necessary for effective editing, rewriting, and punctuation of business documents. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.”</td>
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<tr>
<td>OFADM: 231</td>
<td>Intermediate Word Processing</td>
<td>3</td>
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<td><strong>Proposed Discipline(s):</strong> OFFICE TECHNOLOGIES</td>
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<td><strong>Rationale for Disciplines:</strong> “OFADM 231 requires an instructor who has a background in word processing software in order to enable the student to gain the skills necessary for effective utilization of the software for document creation. Such faculty are those who have met the minimum qualifications for the discipline of Office Technologies.”</td>
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<tr>
<td>OFADM 232</td>
<td>Advanced Word Processing and Desktop Publishing</td>
<td>3</td>
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<td></td>
<td><strong>Proposed Discipline(s):</strong> OFFICE TECHNOLOGIES</td>
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<td><strong>Rationale for Disciplines:</strong> “OFADM 232 requires an instructor who has a background in word processing software in order to enable the student to gain the skills necessary for effective utilization of the software for document creation. Such faculty are those who have met the minimum qualifications for the discipline of Office Technologies.”</td>
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<tr>
<td>OFADM 313</td>
<td>Office Skills</td>
<td>3</td>
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<td></td>
<td><strong>Proposed Discipline(s):</strong> OFFICE TECHNOLOGIES</td>
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<td><strong>Rationale for Disciplines:</strong> “OFADM 313 requires an instructor who has experience in the office environment in order to enable the student to learn employable skills that are required for office work. Such faculty are those who have met the minimum qualifications for the discipline of Office Technologies.”</td>
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<tr>
<td>OFADM 314</td>
<td>Office Procedures &amp; Technologies</td>
<td>3</td>
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<td></td>
<td><strong>Proposed Discipline(s):</strong> OFFICE TECHNOLOGIES</td>
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<td></td>
<td><strong>Rationale for Disciplines:</strong> “OFADM 314 requires an instructor who has experience in the office environment in order to enable the student to utilize and demonstrate skills that are required for office work. Such faculty are those who have met the minimum qualifications for the discipline of Office Technologies.”</td>
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<tr>
<td>OFADM 315</td>
<td>Today’s Office</td>
<td>2</td>
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<tr>
<td></td>
<td><strong>Proposed Discipline(s):</strong> OFFICE TECHNOLOGIES</td>
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<td></td>
<td><strong>Rationale for Disciplines:</strong> “OFADM 315 requires an instructor who has experience in the office environment in order to enable the student to perform duties required within an office and oversee student interns. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.”</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credit</td>
<td>Disciplines</td>
<td>Rationale for Disciplines</td>
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</tr>
<tr>
<td>OFADM 320</td>
<td>Telephone Techniques</td>
<td>1</td>
<td>OFFICE TECHNOLOGIES</td>
<td>OFADM 320 requires an instructor who has experience in the office environment in order to enable the student to learn and practice telephone techniques that are required within an office. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.</td>
</tr>
<tr>
<td>OFADM 328</td>
<td>Machine Transcription 1</td>
<td>1</td>
<td>OFFICE TECHNOLOGIES</td>
<td>OFADM 328 requires an instructor who has a strong background in grammar, punctuation, and proofreading used in the business environment in order to enable the student to gain and apply the skills necessary for effective transcription, editing, rewriting, and punctuation of business documents. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.</td>
</tr>
<tr>
<td>OFADM 329</td>
<td>Machine Transcription 2</td>
<td>2</td>
<td>OFFICE TECHNOLOGIES</td>
<td>OFADM 329 requires an instructor who has a strong background in grammar, punctuation, and proofreading used in the business environment in order to enable the student to gain and apply the skills necessary for effective transcription, editing, rewriting, and punctuation of business documents. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.</td>
</tr>
<tr>
<td>OFADM 330</td>
<td>Beginning Word Processing</td>
<td>3</td>
<td>OFFICE TECHNOLOGIES</td>
<td>OFADM 330 requires an instructor who has a background in word processing software in order to enable the student to gain the skills necessary for effective utilization of the software for document creation. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.</td>
</tr>
<tr>
<td>OFADM 353</td>
<td>Introduction to Computers and Windows</td>
<td>1</td>
<td>OFFICE TECHNOLOGIES</td>
<td>OFADM 353 requires an instructor who has a background in Windows operating software in order to enable the student to gain the skills necessary for effective software utilization. Such faculty are those who have met the minimum qualifications for the discipline of Office Technologies.</td>
</tr>
<tr>
<td>OFADM 356</td>
<td>Introduction to Word Processing</td>
<td>1</td>
<td>OFFICE TECHNOLOGIES</td>
<td>OFADM 356 requires an instructor who has a background in word processing software in order to enable the student to gain the skills necessary for effective utilization of the software for document creation. Such faculty are those who have met the minimum qualifications for the discipline of Office Technologies.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Modify:</td>
<td>Disciplines</td>
<td>Proposed Discipline(s):</td>
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<tr>
<td>OFADM 359</td>
<td>Introduction to Spreadsheet Software</td>
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<td>OFFICE TECHNOLOGIES</td>
</tr>
<tr>
<td>OFADM 361</td>
<td>Introduction to Databases</td>
<td></td>
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<td>PHARMACY TECHNOLOGY</td>
</tr>
<tr>
<td>OFADM 362</td>
<td>Introduction to Business Presentation Software</td>
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<td>OFFICE TECHNOLOGIES</td>
</tr>
<tr>
<td>OFADM 363</td>
<td>Understanding the Internet</td>
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<td>OFFICE TECHNOLOGIES</td>
</tr>
<tr>
<td>OFADM 364</td>
<td>Grammar in the Office</td>
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<td>OFFICE TECHNOLOGIES</td>
</tr>
<tr>
<td>OFADM 366</td>
<td>Proofreading Techniques</td>
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<td>OFFICE TECHNOLOGIES</td>
</tr>
</tbody>
</table>
10-Key on the Computer

**OFADM 375**

**Modify:** Disciplines

**Proposed Discipline(s):** OFFICE TECHNOLOGIES

**Rationale for Disciplines:** “OFADM 375 requires an instructor who has a background in alpha-numeric data entry used in the business environment in order to enable the student to gain and apply the skills necessary for speed and accuracy development in utilizing the keyboard and 10-key pad. Such faculty are those who have met the minimum qualifications for the discipline of Office Technology.”

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**MODIFICATIONS/REACTIVATIONS**

**AGM 212**

Mechanical Systems Design & Evaluation 1

**Effective:** Summer 2014

**MODIFY:** Repeat policy, content, methods of instruction, typical assignments, objectives, methods of evaluation, textbooks, outcomes.

**Enrollment Restrictions:** None

**Distance Education Status:** None

**Materials Fee Status:** None

**Articulation Status:** Transfer to CSU

**General Education Status:** Not approved for GE

**Rationale:** Periodic review. Agriculture Mechanics Scheduled review is Fall 2012

**Program Impact:**

Stand Alone

**AGM 213**

Mech. Systems Design & Evaluation 2

**Effective:** Summer 2014

**MODIFY:** Repeat policy, content, methods of instruction, typical assignments, objectives, textbooks, outcomes.

**Enrollment Restrictions:** None

**Distance Education Status:** None

**Materials Fee Status:** None

**Articulation Status:** Transfer to CSU

**General Education Status:** Not approved for GE

**Rationale:** Periodic review. Agriculture Mechanics Scheduled review is Fall 2012

**Program Impact:**

Stand Alone

**AGM 235**

Irrigation and Drainage

**Effective:** Summer 2014

**MODIFY:** Content, methods of instruction, typical assignments, objectives, textbooks, outcomes, methods of evaluation.

**Enrollment Restrictions:** None

**Distance Education Status:** None

**Materials Fee Status:** None

**Articulation Status:** Transfer to CSU

**General Education Status:** Not approved for GE

**Rationale:** Periodic review. Agriculture Mechanics Scheduled review is Fall 2012

**Program Impact:**

1. Crop Science A.S. Degree
2. Fruit Science A. S. Degree
3. Soil Science A. S. Degree
CMPSC 210  Unix/Linux Administration  3
Effective: Summer 2014
MODIFY: Methods of instruction, typical assignments, objectives, textbooks, outcomes, methods of evaluation.
Enrollment Restrictions: Maintaining: (P) Satisfactory completion of CMPSC 206.
Distance Education Status: Online course, Mixed Modalities/Hybrid Course
Materials Fee Status: None
Articulation Status: Transfer to CSU and UC
General Education Status: Not approved for GE
Rationale: Course is being updated to revise CLOs.
Program Impact:
    Stand Alone

ECON 101  Principles of Macroeconomics  3
Effective: Summer 2013 Expedited To align with C-ID descriptor.
Rationale for Expedited Approval: This course is being aligned with C-ID curriculum standards for economics to facilitate TMC process for business degree.
MODIFY: Field trip, content, enrollment restrictions, typical assignments, methods of instruction, objectives, textbooks, outcomes, methods of evaluation.
Enrollment Restrictions: Requesting: (P) Satisfactory completion of MATH 70 or qualification by the MJC assessment process. Requesting: (A) Before enrolling in this course, students are strongly advised to have successfully completed Math 90 or qualification by the MJC assessment process.
Distance Education Status: Maintaining Online course
Materials Fee Status: None
Articulation Status: Transfer to CSU and UC
General Education Status: Approved for (MCJ-GE: B) (CSU-GE: D2) (IGETC: 4B)
Rationale: This course outline needs to be updated to align with C-ID course descriptor in economics for TMC process for business degree.
Program Impact:
1. Business Administration for Transfer AS-T Associate of Science for Transfer (pending)
2. CSU General Education Pattern Certificate of Achievement
3. City & Regional Planning A.S. Degree
4. General Studies, Emphasis in Social and Behavioral Sciences A.A. Degree
5. MJC-GE Pattern A.A. Degree Major
6. University Preparation, Emphasis in Agricultural Sciences A.A. Univ Prep-Area of Emphasis
ECON 102  
Principles of Microeconomics  
**Effective:** Summer 2013  
**Rationale for Expedited Approval:** Econ 102 is being updated to align with C-ID course descriptor to facilitate TMC process for business degree.  
**MODIFY:**  
Content, enrollment restrictions, requisite skills, methods of instruction, objectives, textbooks, outcomes, methods of evaluation.  
**Enrollment Restrictions:** Requesting: (P) Satisfactory completion of MATH 70 or qualification by the MJC assessment process. Requesting: (A) Before enrolling in this course, students are strongly advised to have successfully completed Math 90 or qualification by the MJC assessment process.  
**Distance Education Status:** Maintaining Online course  
**Materials Fee Status:** None  
**Articulation Status:** Transfer to CSU and UC  
**General Education Status:** Approved for (MCJ-GE: B) (CSU-GE: D2) (IGETC: 4B)  
**Rationale:** The business AA degree requires that students take economics courses. Econ 102 needs to be aligned with the C-ID descriptor for economics to facilitate the TMC process for the business degree.  
**Program Impact:**  
1. Business Administration for Transfer AS-T Associate of Science for Transfer (pending)  
2. CSU General Education Pattern Certificate of Achievement  
3. City & Regional Planning A.S. Degree  
4. General Studies, Emphasis in Social and Behavioral Sciences A.A. Degree  
5. MJC-GE Pattern A.A. Degree Major

ELTEC 230  
Blueprint Reading for Electricians  
**Effective:** Summer 2014  
**MODIFY:** Description, units, content, enrollment restrictions, hours, methods of instruction, typical assignments, objectives, textbooks, outcomes, methods of evaluation.  
**Enrollment Restrictions:** Removing: (A) before enrolling in this course, students are strongly advised to complete AGM 225 and ELTEC 229 or INTEC 229 and ELTEC 226 or INTEC 226.  
**Distance Education Status:** None  
**Materials Fee Status:** None  
**Articulation Status:** Transfer to CSU  
**General Education Status:** Not approved for GE  
**Rationale:** Periodic course review  
**Program Impact:**  
1. Certificate Industrial Electronics A.S. Degree

MACH 218  
Introduction to CNC Lathe Programming  
**Effective:** Summer 2014  
**MODIFY:** Discipline, requisite skills, methods of instruction, typical assignments, objectives, textbooks, outcomes, methods of evaluation.  
**Enrollment Restrictions:** Maintaining: (A) before enrolling in this course, students are strongly advised to have previous machining experience using manual or CNC lathes.  
**Distance Education Status:** Requesting: Mixed Modalities/Hybrid Course  
**Materials Fee Status:** Maintaining fee of $10  
**Articulation Status:** Transfer to CSU  
**General Education Status:** Not approved for GE  
**Rationale:** Periodic review  
**Program Impact:**  
1. CNC Programmer Skills Recognition Award  
2. Machine Tool Technology 2 Certificate of Achievement
MACH 219  
Introduction to CNC Mill Programming  
Effective: Summer 2014  
MODIFY: Discipline, content, requisite skills, methods of instruction, typical assignments, objectives, textbooks, outcomes.  
Enrollment Restrictions: Maintaining: (A) before enrolling in this course, students are strongly advised to satisfactorily complete courses or training that have provided them with experience in the use of manual or CNC milling machines.  
Distance Education Status: Requesting: Mixed Modalities/Hybrid Course  
Materials Fee Status: Maintaining fee of $10  
Articulation Status: Transfer to CSU  
General Education Status: Not approved for GE  
Rationale: Periodic review and the addition hybrid status to the lecture portion of the course.  
Program Impact:  
1. CNC Operator Skills Recognition Award  
2. CNC Programmer Skills Recognition Award  
3. Machine Tool Technology 2 Certificate of Achievement

MACH 301  
Machine Shop 1  
Effective: Summer 2014  
MODIFY: Discipline, content, enrollment restrictions, requisite skills, methods of instruction, typical assignments, objectives, textbooks, outcomes, methods of evaluation.  
Enrollment Restrictions: Requesting: (A) before enrolling in this course, students are strongly advised to be able to speak, read and understand English.  
Distance Education Status: None  
Materials Fee Status: Maintaining fee of $25  
Articulation Status: Does not transfer  
General Education Status: Not approved for GE  
Rationale: Periodic review.  
Program Impact:  
1. Automotive Technician Certificate of Achievement  
2. Automotive Technician A.S. Degree  
3. General Plant Maintenance Certificate of Achievement  
4. Maintenance Machinist 1 Skills Recognition Award  
5. Maintenance Machinist 2 Certificate of Achievement  
6. Maintenance Mechanic Certificate of Achievement  
7. Printing Maintenance Certificate of Achievement

MACH 302  
Machine Shop 2  
Effective: Summer 2013 Expedited! To ensure student progression within program.  
Rationale for Expedited Approval: In CurricUNET, this course was inadvertently changed to “archived” status even though it is currently being taught and is scheduled to be taught in the Spring of 2013.  
MODIFY: Discipline, content, enrollment restrictions, requisite skills, methods of instruction, typical assignments, objectives, textbooks, outcomes, methods of evaluation.  
Enrollment Restrictions: Maintaining: (P) Satisfactory completion of MACH 211 or MACH 301  
Distance Education Status: None  
Materials Fee Status: Maintaining fee of $20  
Articulation Status: Does not transfer  
General Education Status: Not approved for GE  
Rationale: Periodic Review.  
Program Impact:  
1. Maintenance Machinist 1 Skills Recognition Award  
2. Maintenance Machinist 2 Certificate of Achievement
Machine Shop 3
Effective: Summer 2013 Expedited To ensure student progression within program.
Rationale for Expedited Approval: In CurriCUNET, the course was inadvertently put in "archived" status even though it is currently being taught and is scheduled to be taught in the Spring of 2013. This situation needs to be resolved ASAP.
MODIFY: Discipline, description, content, enrollment restrictions, methods of instruction, typical assignments, objectives, textbooks, outcomes, methods of evaluation.
Enrollment Restrictions: Requesting: (P) Satisfactory completion of MACH 212 or MACH 302
Distance Education Status: Requesting: Mixed Modalities/Hybrid Course
Materials Fee Status: Maintaining fee of $25
Articulation Status: Does not transfer
General Education Status: Not approved for GE
Rationale: Periodic Review.
Program Impact:
1. Maintenance Machinist 2 Certificate of Achievement

Adaptive Exercise for Mature Adults
Effective: Summer 2014
MODIFY: Description, content, enrollment restrictions, methods of instruction, typical assignments, objectives, textbooks, outcomes, methods of evaluation.
Enrollment Restrictions: Requesting: (A) before enrolling in this course, students are strongly advised to seek physician(s)' recommendations on exercise limitations and advisories.
Distance Education Status: None
Materials Fee Status: None
Articulation Status: Does not transfer
General Education Status: Not approved for GE
Rationale: Update and review to meet current curriculum standards and to ensure a repeatable course is available for disability students.
Program Impact:
Stand Alone

Advanced Golf
Effective: Summer 2013 Expedited To comply with newly revised code or law.
Rationale for Expedited Approval: Reactivate and update to meet current curriculum standards, address Title 5 changes to repeatability, and provide an advanced level training course for athletics.
MODIFY: Number, description, content, hours, requisite skills, enrollment restrictions, methods of instruction, typical assignments, objectives, textbooks, outcomes, methods of evaluation.
Enrollment Restrictions: Requesting: (A) before enrolling in this course, students are strongly advised to satisfactorily complete PEC 144
Distance Education Status: None
Materials Fee Status: None
Articulation Status: Transfer to CSU and UC
General Education Status: Requesting: (MJC: Activities)
Rationale: This course is being brought back to address the changes of Title 5 repeatability.
Program Impact:
Stand Alone
Advanced Wrestling

Effective: Summer 2013 Expedited To comply with newly revised code or law.

Rationale for Expedited Approval: Expedited approval is being requested so this course maintains repeatability. Repeatability is allowed for this course since it is a conditioning course for intercollegiate athletics, and meets criteria #2 of Title 55041(a).

MODIFY: Content, units, repetition, hours, methods of instruction, typical assignments, objectives, textbooks, outcomes, methods of evaluation.

Enrollment Restrictions: None
Distance Education Status: None
Materials Fee Status: None
Articulation Status: Transfer to CSU and UC
General Education Status: Approved for (MJC: Activities)
Rationale: Periodic review and update to meet current curriculum standards.
Program Impact: Stand Alone

NEW COURSES
None

VI. PROGRAM NOTIFICATION AGENDA

Chancellor’s Office Approvals: PROGRAMS: CCC-501, CCC510, CCC-511, CCC-300 Application Approvals

Chancellor’s Office Denials: PROGRAMS

Chancellor’s Office Updates

Program Learning Outcomes
(Non None)

VII. PROGRAM CONSENT AGENDA
VIII. PROGRAM DISCUSSION AGENDA

Program Learning Outcomes

(NONE)

Program Changes that do not require Chancellor’s Office Notification/Application

C: Child Development Site Supervisor
  MODIFY: Program learning outcomes, program requirements, required courses
  Effective: Summer 2013 Expedited!
  Rationale for Expedited Implementation: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog
  Rationale: Update certificate to align with recent changes in program and courses.

SR: Design and Technical Theatre
  MODIFY: Required courses
  Effective: Summer 2013 Expedited!
  Rationale for Expedited Implementation: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.
  This course proposal has not been completed in CurricUNET, but appears here for the purpose of meeting catalog production deadlines.

Skills Recognition Award: Design & Technical Theatre

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

REQUIRED COURSES - Complete 15 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 183 [2] Fundamentals of Stage Makeup 1........................................ 1
THETR 174 [1] Stage Makeup................................................................. 3
THETR 190A [NP] Theatre Production Workshop...................................... 1
THETR 196 [NP] Theatre Management..................................................... 1
TOTAL UNITS FOR SKILLS RECOGNITION AWARD............................................. 17

C: Machine Tool Technology 2
  MODIFY: Required courses
  Effective: Summer 2013 Expedited!
  Rationale for Expedited Implementation: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog
  Rationale: Periodic review and to remove from the requirements classes that are no longer offered.

C: Maintenance Machinist 2
  MODIFY: Program learning outcomes, required courses, elective courses
  Effective: Summer 2013 Expedited!
  Rationale for Expedited Implementation: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog
  Rationale: Periodic review and to modify the requirements to remove courses that are no longer being offered.
SR: **Psychosocial Rehabilitation** 9

**MODIFY:** Program learning outcomes, required courses.

**Effective:** Summer 2013

**Rationale for Expedited Implementation:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.

**Rationale:** 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 children and adults 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.

C: **Teacher** 24

**MODIFY:** Program learning outcomes, program requirements, required courses, elective courses.

**Effective:** Summer 2013

**Rationale for Expedited Implementation:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.

**Rationale:** Update and bring in line with recent program changes.

**Application for Approval - New Credit Programs (Formerly the CCC-501)**

**AA-T** Anthropology for Transfer 19-21

**ADOPT**

**Effective:** Summer 2013 (contingent upon CCCO Approval)

**Rationale for Expedited Implementation:** To facilitate MJC’s institutional compliance with SB 1440 by Fall 2013.

**Rationale:** This program is being proposed for compliance with SB 1440 and to streamline student transfer to CSU.

**Catalog Description:** All academic subfields of anthropology are emphasized at MJC, including biological anthropology, cultural anthropology, linguistic anthropology and archaeology. Students will learn how to utilize and apply anthropology and its scientific and humanistic modalities. Across broad coursework, students will discover the uniqueness of being biologically human and engage the role of culture and language in the histories and politics of an interconnected, global world.
**Substantial Changes to an Approved Credit Program** (formerly the CCC-510)

(None)

**Non-Substantial Changes to Approved Program or Change of Active–Inactive Status** (formerly the CCC-511)

### AWARD INACTIVATIONS

<table>
<thead>
<tr>
<th>AA:</th>
<th>Program</th>
<th>Code</th>
<th>Effective</th>
<th>Rationale for Expedited Implementation</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Administration</td>
<td>20</td>
<td></td>
<td>Summer 2013</td>
<td>To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.</td>
<td>The A.A. degree is being inactivated because a current A.S. degree exists and an A.S.-T proposal has been approved by the Curriculum Committee and submitted to the Chancellor's Office for approval. The A.A. degree is being inactivated to align with the recommendation of the Board of Governors, the State Academic Senate, and MJC Curriculum Committee Resolution SP11-CC2, that CTE programs shall be designated as an A.S. degree. The program will maintain the current A.S. degree in Business Administration.</td>
</tr>
<tr>
<td>Clerical</td>
<td>20</td>
<td></td>
<td>Summer 2013</td>
<td>To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.</td>
<td>The Clerical A.A. degree is being discontinued so that we have only an A.S. Clerical degree.</td>
</tr>
<tr>
<td>Office Administration</td>
<td>20</td>
<td></td>
<td>Summer 2013</td>
<td>To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.</td>
<td>The Office Administration A.A. degree is being discontinued so that we have only an Office Administration A.S. degree.</td>
</tr>
</tbody>
</table>
AWARD MODIFICATIONS

C:  

Associate Teacher  

**MODIFY** Program learning outcomes, required courses, total units  

**Effective:** Summer 2013 **Expedited!**  

**Rationale for Expedited Implementation:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.  

**Rationale:** To reflect modifications in the program.

AS:  

Clerical  

**MODIFY** Program structure (removing elective coursework requirement), required courses, total units  

**Effective:** Summer 2013 **Expedited!**  

**Rationale for Expedited Implementation:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.  

**Rationale:** To update Clerical program award to an A.S. degree only.

C:  

Landscape Design  

**MODIFY** Elective courses, (removing 3 units of Elective courses- BOT 110), total units  

**Effective:** Summer 2013 **Expedited!**  

**Rationale for Expedited Implementation:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.  

**Rationale:** Due to multiple course inactivations, the Landscape Design certificate was no longer accurate and students could not complete it as written.

**REQUIRED COURSES - Complete 21 units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 200</td>
<td>Soils</td>
<td>4</td>
</tr>
<tr>
<td>EHS 201 [1,2]</td>
<td>Plant Identification and Usage 1</td>
<td>3</td>
</tr>
<tr>
<td>EHS 202 [1,2]</td>
<td>Plant Identification and Usage 2</td>
<td>3</td>
</tr>
<tr>
<td>EHS 210 [1]</td>
<td>Introduction to Environmental Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>EHS 215 [3]</td>
<td>Landscape Design</td>
<td>3</td>
</tr>
<tr>
<td>AG 115 [1]</td>
<td>Introduction to Agricultural Education and Careers</td>
<td>1</td>
</tr>
<tr>
<td>AG 349A-D [NP]</td>
<td>Agriculture Work Experience</td>
<td>4</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES - Complete 9 units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EHS 276 [NP]</td>
<td>Landscape Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>EHS 278 [NP]</td>
<td>Landscape Construction and Installation</td>
<td>3</td>
</tr>
<tr>
<td>NR 222 [NP]</td>
<td>Native Tree &amp; Shrub Identification</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 201 [NP]</td>
<td>General Computer Literacy</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGEC 225 [NP]</td>
<td>Agriculture Computer Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units for Certificate of Achievement**

30

C:  

Master Teacher  

**MODIFY** Program learning outcomes, required courses, elective courses, (removing 6 units specialization option), total units.  

**Effective:** Summer 2013 **Expedited!**  

**Rationale for Expedited Implementation:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.  

**Rationale:** Revisions to bring the certificate into alignment with recent course changes
AS: Office Administration 27 ½

MODIFY: Program description, program learning outcomes, program requirements, required courses, elective courses, total units.

Effective: Summer 2013 Expedited!

Rationale for Expedited Implementation: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog.

Rationale: To update Office Administration program award to an A.S. degree only.

IX. STANDING REPORTS

1. Transfer Model Curriculum
2. C-ID
3. CurricUNET Implementation/Issues
4. Outcomes Assessment Workgroup

X. UNFINISHED BUSINESS

Action Items

1. Course Substitutions for Academic Awards
   M. Robles
   Postponed until December

2. Outcomes Assessments and Curriculum Modifications
   L. Miller

3. Policies for Prerequisites/Corequisites/Advisories
   M. Robles
   Postponed until December

4. Repeatability
   B. Adams

Informational Items

1. Equating Courses and Repetitions
   L. Miller
   Postponed Indefinitely

2. Independent Study and Work Experience Course Outlines
   B. Adams
   Postponed Indefinitely

XI. NEW BUSINESS

Informational Items

1. Preview of Curriculum Changes and Impacts on 13-14 Catalog
   B. Adams for L. Miller
   (included in agenda PDF)

Action Items

1. Prerequisite/Corequisite/Advisory/Limitation on Enrollment Language Standardization
   L. Miller
   No Report

2. Proposed Curriculum Meeting Dates for 2013-2014
   L. Miller/B. Adams
Annual Curriculum Training (Friday)
09/06/13

Fall Meetings (Tuesdays, 2:40 PM)
09/10/13
09/24/13
10/08/13
10/22/13 - Last meeting for 2014-2015 approvals
11/05/13 - 2014-2015 approvals begin
11/19/13
12/03/13

Spring Meetings (Tuesdays, 2:40 PM)
01/21/14
02/04/14
02/18/14
03/04/14
03/18/14
04/01/14
04/15/14

XII. PUBLIC COMMENT
I. APPROVAL OF ORDER OF AGENDA

Hearing no objection, the order of the agenda was approved.

II. APPROVAL OF MINUTES

M/S/U (J. Sola, C. Mulder) to approve the minutes of November 20, 2012.

III. COURSE NOTIFICATION AGENDA

Chancellor’s Office Approvals: COURSES
- ART 158
- ART 159
- AUTEC 200
- MACH 357
- PEC 131
- PEW 181

The committee was notified of the courses approved by the Chancellor’s Office.

IV. COURSE CONSENT AGENDA

V. COURSE DISCUSSION AGENDA

INACTIVATIONS

ADJU 206  Multicultural Issues Within Public Safety  3
Effective: Summer 2013 Expedited!
Rationale for Expedited Approval: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog
Rationale: Course has not been offered for the last 13 years
INACTIVATE
Program Impact:
1. Administration of Justice A.A. Degree (pending inactivation)
2. Administration of Justice A.S. Degree
3. Administration of Justice for Transfer AS-T Associate of Science for Transfer (pending Board of Trustees and CCCCO approval)
4. Ethnic Studies Skills Recognition Award

**M/S/U (M. Adams, K. Ennis) to INACTIVATE ADJU 206**

**M/S/U (M. Lynch, L. Hatch) to EXPEDITE INACTIVATION of ADU 206**

---

**PEM 112 X**

**Beginning Basketball**

Effective: Summer 2013

**Rationale for Expedited Approval:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog

**Rationale:** The course is being modified in order to comply with the new Title 5 repeatability requirements. The modification of units will result in an inactivation of a unit variant.

**INACTIVATE**

**Program Impact:**

1. Physical Education A.A. Degree

**M/S/U (M. Adams, K. Ennis) to INACTIVATE PEM 112X**

**M/S/U (M. Lynch, L. Hatch) to EXPEDITE INACTIVATION of PEM 112X**

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**PEM 114 X**

**Advanced Basketball**

Effective: Summer 2013

**Rationale for Expedited Approval:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog

**Rationale:** The course is being modified in order to comply with the new Title 5 repeatability requirements. The modification of units will result in an inactivation of a unit variant.

**INACTIVATE**

**Program Impact:**

1. Physical Education A.A. Degree

**M/S/U (M. Adams, K. Ennis) to INACTIVATE PEM 114X**

**M/S/U (M. Lynch, L. Hatch) to EXPEDITE INACTIVATION of PEM 114X**

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**THETR 170 X**

**Hip Hop**

Effective: Summer 2013

**Rationale for Expedited Approval:** To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog

**Rationale:** The course is being modified in order to comply with the new Title 5 repeatability requirements. The modification of units will result in an inactivation of a unit variant.

**INACTIVATE**

**Program Impact:**

1. Physical Education A.A. Degree

**M/S/U (M. Adams, K. Ennis) to INACTIVATE THETR 170X/PEC 120X**

**M/S/U (M. Lynch, L. Hatch) to EXPEDITE INACTIVATION of THETR 170X/PEC 120X**

---

**UPDATES**

**PLACEMENT OF COURSES IN DISCIPLINES:**

*(None)*

**MODIFICATIONS/REACTIVATIONS**

**BUSAD 218**

**Business Law**

4
Effective: Summer 2013 Expedited To comply with newly revised code or law.
Rationale for Expedited Approval: Minor updates to align with C-ID descriptor; update text.
MODIFY: Enrollment restrictions, typical assignments, description, content, textbooks, objectives, methods of evaluation, outcomes.
Enrollment Restrictions: Requesting: (A) before enrolling in this course, students are strongly advised to Third Semester Business Major.
Distance Education Status: None
Materials Fee Status: None
Articulation Status: Transfer to CSU and UC
General Education Status: Not approved for GE
Rationale: Course needs to align with C-ID descriptor.
Program Impact:
1. Accounting Certificate of Achievement
2. Accounting A.A. Degree
3. Accounting A.S. Degree
4. Business Administration A.A. Degree
5. Business Administration for Transfer AS-T Degree (pending Board of Trustees and CCCCO approval)
7. Computer Information Systems A.A. Degree
8. International Business Certificate of Achievement
9. Marketing A.S. Degree
10. Real Estate A.S. Degree
11. Real Estate Certificate of Achievement
12. Real Estate A.A. Degree Major
M/S/U (M. Adams, K. Ennis) to MODIFY BUSAD 218
M/S/U (K. Ennis, M. Adams) to MODIFY REQUISITES for BUSAD 218
M/S/U (M. Lynch, L. Hatch) to EXPEDITE MODIFICATIONS of BUSAD 218

MUST 123 Music Theory 3 3
Effective: Summer 2013 Expedited To comply with newly revised code or law.
Rationale for Expedited Approval: Periodic Review and to align with C-ID descriptor.
MODIFY: Description, title, content, typical assignments, textbooks, objectives, methods of evaluation, methods of intrusions, outcomes, requisite skills.
Enrollment Restrictions: Maintaining: (P) Satisfactory completion of MUST 122; (C) Concurrent enrollment in MUST 130; (A) before enrolling in this course, students are strongly advised to be concurrently enrolled in MUST 133.
Distance Education Status: None
Materials Fee Status: None
Articulation Status: Transfer to CSU and UC
General Education Status: Requesting: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)
Rationale: This course is included in the Music TMC proposal and the course needs to be comparable to the C-ID descriptor.
Program Impact:
1. A.A.-T Music for Transfer AA-T Degree (pending CCCCO approval)
2. CSU General Education Pattern Certificate of Achievement
3. Music A.A. Degree
M/S/U (M. Adams, K. Ennis) to MODIFY MUST 123
M/S/U (K. Ennis, M. Adams) to MAINTAIN REQUISITES for MUST 123
M/S/U (E. Maki, E. Kerr) to MAINTAIN PLACEMENT OF MUST 123 on GE PATTERN(S)
M/S/U (C. Mulder, E. Maki) to EXPEDITE MODIFICATIONS of MUST 123

PEM 112 Beginning Basketball 1
Effective: Summer 2013 Expedited To comply with newly revised code or law.
Rationale for Expedited Approval: Periodic Review and update to meet current curriculum standards.
MODIFY: Units, hours, field trip, repeat policies, description, content, objectives, textbooks, outcomes, typical assignments, methods of evaluation.

Enrollment Restrictions: None
Distance Education Status: None
Materials Fee Status: None
Articulation Status: Transfer to CSU and UC

General Education Status: Approved for (MJC: Activities)

Rationale: This course is currently repeatable 3 times. In order to comply with the new Title 5 repeatability guidelines, we are requesting expedited approval.

Program Impact:

1. Physical Education A.A. Degree

M/S/U (M. Adams, K. Ennis) to MODIFY PEM 112
M/S/U (P. Upton, M. Lynch) to PLACE PEM 112 on ACTIVITIES
M/S/U (C. MULDER, E. MAKI) to EXPEDITE MODIFICATIONS of PEM 112

PEM 114 Advanced Basketball 1
Effective: Summer 2013 Expedited To comply with newly revised code or law.

Rationale for Expedited Approval: Periodic review and update to meet current curriculum standards

NOTE: Inactivation of X variant required. (Changing from PEM 114XA to PEM 114.)

MODIFY: Units, hours, repetition, description, content, outcomes, objectives, methods of evaluation, typical assignments, methods of instruction, textbooks.

Enrollment Restrictions: None
Distance Education Status: None
Materials Fee Status: None
Articulation Status: Transfer to CSU and UC

General Education Status: Approved for (MJC: Activities)

Rationale: This course is currently repeatable 3 times. The course is being modified in order to comply with the new Title 5 repeatability requirements.

Program Impact:

1. Physical Education A.A. Degree

M/S/U (M. Adams, K. Ennis) to MODIFY PEM 114
M/S/U (P. Upton, M. Lynch) to PLACE PEM 114 on ACTIVITIES
M/S/U (C. MULDER, E. MAKI) to EXPEDITE MODIFICATIONS of PEM 114

THETR 170 Hip Hop 1
PEC 120 Effective: Summer 2013 Expedited To comply with newly revised code or law.

Rationale for Expedited Approval: This course is out of compliance and it is listed in the Kinesiology TMC

NOTE: Inactivation of X variants required. (Changing from THETR 170XA/PEC 120XA to THETR 170/PEC 120.) PEC 120 will be built from existing PEC 120 record in Datatel, and will need to be equated to old PEC 120 A record.

MODIFY: Units, hours, field trip, content, objectives, methods of evaluation, typical assignments.

Enrollment Restrictions: None
Distance Education Status: None
Materials Fee Status: None
Articulation Status: Transfer to CSU and UC

General Education Status: Maintaining (MJC: Activities)

Rationale: Periodic course update
Program Impact:

1. Theatre A.A. Degree
2. Physical Education A.A. Degree
3. Kinesiology for Transfer A.S.-T. Degree (pending approval by Board of Trustees and CCCCO)

M/S/U (M. Adams, K. Ennis) to MODIFY THETR 170/PEC 120
M/S/U (P. Upton, M. Lynch) to PLACE THETR 170/PEC 120 on ACTIVITIES
M/S/U (C. MULDER, E. MAKI) to EXPEDITE MODIFICATIONS of THETR 170/PEC 120
NEW COURSES

PE 142 Supervision in Athletic Training 2
Effective: Expedited! Summer 2013 To comply with newly revised code or law
Rationale for Expedited Approval: This new course is being created to address the new Title 5 repeatability restrictions.
ADOPT
Enrollment Restrictions: Requesting: (P) Satisfactory completion of PE 141
Distance Education Status: None
Materials Fee Status: None
Articulation Status: Transfers to CSU
General Education Status: Not approved for GE
Rationale: The current version of this course is repeatable 3 times. In order to comply with the new Title 5 changes to repeatability, the current course was modified and new courses had to be created.
Program Impact:
Stand Alone
M/S/U (M. Adams, K. Ennis) to ADOPT PE 142
M/S/U (K. Ennis, M. Adams) to MODIFY REQUISITES for PE 142
M/S/U (M. Lynch, L. Hatch) to EXPEDITE MODIFICATIONS of PE 142

PE 143 Supervision in Athletic Training 3
Effective: Expedited! Summer 2013 To comply with newly revised code or law
Rationale for Expedited Approval: This course is being created to address the Title 5 changes to repeatability
ADOPT
Enrollment Restrictions: Requesting: (P) Satisfactory completion of PE 142
Distance Education Status: None
Materials Fee Status: None
Articulation Status: Transfers to CSU
General Education Status: Not approved for GE
Rationale: The current version of this course is offered 4 times to enable students to prepare for entrance into a university level Athletic Training program. With the new restrictions on repeatability, it is necessary to implement new courses to enable our students to continue their university preparation.
Program Impact:
Stand Alone
M/S/U (M. Adams, K. Ennis) to ADOPT PE 143
M/S/U (K. Ennis, M. Adams) to MODIFY REQUISITES for PE 143
M/S/U (M. Lynch, L. Hatch) to EXPEDITE MODIFICATIONS of PE 143

PE 144 Supervision in Athletic Training 4
Effective: Expedited! Summer 2013 To comply with newly revised code or law
Rationale for Expedited Approval: This new course is being created to address the new Title 5 repeatability changes.
ADOPT
Enrollment Restrictions: Requesting: (P) Satisfactory completion of PE 143
Distance Education Status: None
Materials Fee Status: None
Articulation Status: Transfers to CSU
General Education Status: Not approved for GE
Rationale: The current version of this course is repeatable 3 times. In order to comply with the new Title 5 repeatability changes, the current course was revised and new courses had to be created.
Program Impact:
Stand Alone
M/S/U (M. Adams, K. Ennis) to ADOPT PE 144
M/S/U (K. Ennis, M. Adams) to MODIFY REQUISITES for PE 144
VI. PROGRAM NOTIFICATION AGENDA

Chancellor’s Office Approvals: PROGRAMS: CCC-501, CCC510, CCC-511, CCC-300 Application Approvals

Chancellor’s Office Denials: PROGRAMS

Chancellor’s Office Updates

Program Learning Outcomes

AS-T: Administration of Justice

Effective: Summer 2013, Expedited!

Rationale for Expedited Approval: To ensure the accuracy of PLOs and elective course options for TMC application

Rationale: An elective course was erroneously included in the TMC template. It has been removed from the TMC template because it was intended for inactivation.

Modify: elective course options, program learning outcomes

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. 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.

Hearing no objections, the committee was notified of an elective course removal from the TMC template and proposed program learning outcomes for the AS-T in Administration of Justice.

VII. PROGRAM CONSENT AGENDA

VIII. PROGRAM DISCUSSION AGENDA

Program Learning Outcomes

(NONE)

Program Changes that do not require Chancellor’s Office Notification/Application

CCC-501: Application for Approval - New Credit Programs

CCC-510: Substantial Changes to an Approved Credit Program

(None)
CCC-511: Non-Substantial Changes to Approved Program or Change of Active–Inactive Status

AA: Administration of Justice 21

INACTIVATE

Effective: Summer 2013 Expedited!

Rationale for Expedited Implementation: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog

Rationale: The A.A. degree is being inactivated because a current A.S. degree exists and an A.S.-T proposal has been approved by the Curriculum Committee that will be submitted to the Chancellor’s Office for approval. The A.A. Degree is being inactivated to align with the recommendations of the Board of Governors, the State Academic Senate, and MJC Curriculum Committee Resolution SP11-CC2, that CTE programs shall be designated as an A.S. degree. The program will maintain the current A.S. degree in Administration of Justice.

M/S/U (L. Hatch, S. Circle) to INACTIVATE the AA in Administration of Justice

M/S/U (M. Lynch, L. Hatch) to EXPEDITE INACTIVATION of the AA in Administration of Justice

AA: Autobody/Collision Repair 24

INACTIVATE

Effective: Summer 2013 Expedited!

Rationale for Expedited Implementation: To ensure students receive accurate information about the availability of curricular offerings in the 2013-2014 catalog

Rationale: The A.A. Degree is being inactivated to align with the recommendations of the Board of Governors, the State Academic Senate, and MJC Curriculum Committee Resolution SP11-CC2, that CTE programs shall be designated as an A.S. degree. The program will maintain the current A.S. degree in Autobody Collision Repair.

M/S/U (L. Hatch, S. Circle) to INACTIVATE the AA in Autobody/Collision Repair

M/S/U (M. Lynch, L. Hatch) to EXPEDITE INACTIVATION of the AA in Autobody/Collision Repair

IX. STANDING REPORTS

1. Transfer Model Curriculum  
   B. Adams

   CCCCO Memo (11/30/2012)

   “SB 1440 Student Transfer Achievement Reform Act and SB 1415 Common Course Numbering System”

   B. Adams provided information to the committee from the CCCCO memo that was sent out on November 30, 2012. B. Adams announced that effective January 1, 2013; any of the AA-T and AS-T proposals submitted must also demonstrate that courses included in the degree have been submitted for C-ID numbers, where descriptors exist. The course’s C-ID number may be in pending or final status. Articulation may only be used for courses where no C-ID descriptor exists.

   B. Adams reported that by June 1, 2013, for any existing AA-T and AS-T degrees that included a self-certification that a course or courses matched a C-ID descriptor, colleges are required to submit those courses for C-ID approval where descriptors exist.

   B. Adams reported that by June 1, 2013, for any existing AA-T and AS-T degrees that included a self-certification that a course or courses matched a C-ID descriptor, colleges are required to submit those courses for C-ID approval where descriptors exist. Barbara reported that by June 1, 2014, colleges must replace all course-to-course articulation used for all AA-T and AS-T degrees by showing that all course(s) have awarded pending or final C-ID status. She said that they will begin deactivating all noncompliant AA-T and AS-T degrees beginning June 2014 that do not have approved C-ID numbers for courses where descriptors exist.

   B. Adams announced that she will be holding a TMC work party on January 9, 2012 from 12 p.m. to 3:45. The work party is open to anyone. She said she will include the Curriculum Committee on the Outlook invite. She reported that that the three TMC’s recently approved by the committee: Kinesiology, Administration of Justice, and Business Administration are slated for the Board agenda on December 12, 2012.

2. C-ID  
   R. Cranley

   R. Cranley reported that she has submitted up to 170 MJC courses for C-ID approval so far. She gave an example of a course that was recently rejected. She reported that the rejection letter specifies exactly why the course was rejected. S.
Circle reported that as a reviewer, they are looking at the CI-D descriptor and matching it. S. Circle said that it seems like the descriptor needs to match or they could pull your TMC at the Chancellor's level.

R. Cranley explained the CI-D spreadsheet to the committee. She reported that the spreadsheet reflects the 346 finalized descriptors. These are descriptors that have been finalized statewide. R. Cranley reported that faculty can email her their submittals, and she will send the information in.

3. CurricUNET Implementation/Issues

B. Adams/L. Miller

B. Adams reported she had issues with the catalog descriptions feature in CNET. She used this feature of CNET to input a description. When she saved the information and forwarded it through the approval stream, the information was not sent to where it needed to go. B. Adams put in a ticket for this item. Travis from CurricUNET is now working to fix this issue.

4. Outcomes Assessment Workgroup

K. Ennis

K. Ennis noted that she had pulled MUST 123 and 124 for revisions to the CLOs. She contacted the instructor and suggested revisions. K. Ennis noted that she had told the faculty member that he did not have to change the CLOs, if he saw they were fine the way they were. She reported that she is only acting as a second pair of eyes that will make suggestions to faculty when revisions may be needed. After discussions with the author/faculty member, the CLOs were revised.

K. Ennis brought forth a proposal which outlines her duties as the OAW/Curriculum Liaison. The proposal is as follows:

Proposal for Outcomes Assessment Workgroup – Curriculum Committee Liaison Role and CLO/PLO Review Procedures

Proposed by: Kathleen Ennis, Library Curriculum Rep; Barbara Adams, Curriculum Co-Chair

For Consideration at 12/04/12 Curriculum Committee Meeting

1. The Outcomes Assessment Workgroup-Curriculum Committee (OAW-CC) Liaison role will be designated for the lead person who reviews CLOs/PLOs included with course and program proposals.

2. The OAW-CC Liaison will have “Curriculum Rep” status for all divisions. This permission level will allow the liaison to review courses/programs as soon as authors have submitted them into the CurricUNET approval stream for Curriculum Representative review (Level 2).

3. As soon as a course or program is submitted by the author, the Liaison receives an email notification. CLOs/PLOs are then evaluated using the following basic criteria.
   a. Are there an appropriate number of outcomes?
   b. Do they accurately reflect the course?
   c. Are they distinguishable from the objectives/content?
   d. Are they clear to someone outside the discipline?
   e. Do they use Bloom’s Taxonomy to express developmental levels of learning?
   f. Do they NOT include the phrase “Demonstrate the ability to...”?

4. Any problematic outcomes are addressed immediately via an email to author notifying him/her there is an issue with the CLOs/PLOs. The original CLOs/PLOs are included in this email, as well the specific problem(s) identified. When appropriate, suggestions for improvement are made. Copies of this email are sent to the division Curriculum Representative, as well as to the Curriculum Co-Chair. Authors are reminded that all changes must be made by Curriculum Co-Chair, since courses/programs are inaccessible to authors and reps once they enter the approval stream.

5. E-mail contacts, as well as all subsequent email/telephone/in-person exchanges, are logged in the CLO/PLO Review document.
6. When course/program reaches “Curriculum Committee Member” status (Level 5), the Liaison re-evaluates outcomes to ensure any corrections agreed upon by the author have been made by the Curriculum Co-Chair. For documentation purposes, a brief summary of CLO/PLO improvement process is entered into the “Comments” section at this time. For any CLOs/PLOs that are still in question, the author and Curriculum Representative will be notified via email one last time.

7. Any courses with problematic outcomes at the time of Curriculum Committee meeting will be identified within the Standing Report and forwarded on to OAW.

8. Any programs with problematic objectives at the time of Curriculum Committee meeting will be pulled for discussion and, if needed, withdrawn.

9. Curriculum Committee OAW-CC Liaison Reports will be forwarded to Curriculum Co-Chair for archiving.

10. All documentation (CLO/PLO Review, bi-weekly Curriculum Committee OAW-CC Liaison Report, and any requested emails) will be forwarded to OAW Co-Chair for archiving, as well as summarized during the OAW Standing Report.

The committee members discussed the proposal. K. Ennis suggested that the committee review the proposal and note down any thoughts to discuss at the first Curriculum Committee meeting of the spring 2013 semester.

**X. UNFINISHED BUSINESS**

**Action Items**

1. **Course Substitutions for Academic Awards**
   - M. Robles
   
   M. Robles said that this action items was postponed until December and mainly because they were waiting to hear about how well the form is or is not working. J. Hughes said that some instructors are confused about the substitution form. She said that it seems like a lot of instructors have the substitution and equivalency intertwined. J. Hughes said that with the new form, divisions do not understand why they are even receiving the form. M. Robles said that she has discussed with J. Hughes recently, ways to help divisions understand when to use the form. There are three things that tend to get integrated M. Robles said which are: course substitution, course equivalency and prerequisites. M. Robles said that we can keep this item on the agenda as a standing report.

   B. Adams noted that a report may need to be done to provide qualitative evidence. M. Robles said that they can work on a report for the next meeting.

2. **Outcomes Assessments and Curriculum Modifications**
   - J. Todd/L. Miller
   - No Report

3. **Policies for Prerequisites/Corequisites/Advisories**
   - M. Robles
   
   M. Robles reported that one meeting has taken place. They will meet again in January to discuss.

4. **Repeatability**
   - B. Adams
   
   B. Adams reported that we are pretty much online with fall 2013 items. B. Adams reminded the committee that it’s not just the course; it has to also be part of the major for the CSU or UC. She said that there are some things now where course repetition will be involved. She gave an example of FSCI (CPR or EMT) courses, where it is repeatable by law and required to be retaken every two years. B. Adams asked M. Robles if everything was covered in Board Policy. M. Robles answered that it is.

**Informational Items**

1. **Equating Courses and Repetitions**
   - L. Miller
   - Postponed Indefinitely
XI. NEW BUSINESS

Action Items

1. Prerequisite/Corequisite/Advisory/Limitation on Enrollment Language Standardization
   L. Miller
   No Report

Informational Items

(NONE)

XII. PUBLIC COMMENT

J. Todd reported that the new Instruction Council is starting up next semester. He mentioned that the council is still in need of several reps.

Meeting adjourned at 3:58 PM
## AA-T and AS-T Certification Form

### 100% Goal Worksheet

**Due January 31, 2013**

**District:** Yosemite  
**College:** Modesto Junior College

<table>
<thead>
<tr>
<th>No.</th>
<th>TMC</th>
<th>TMC Code</th>
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<th>Program Code</th>
<th>TMC Aligned</th>
<th>Active AA/AS</th>
<th>Active AA-T/AS-T</th>
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</tr>
</tbody>
</table>

**TOTAL** 13 2 19

**Number of AA-T and AS-T Degrees to be Offered by Fall 2014** 21

### Required Signatures:

- **James Todd**  
  Signature: President, Academic Senate

- **M. Susan Kincade**  
  Signature: Chief Instructional Officer

- **Jill Stearns**  
  Signature: President/Superintendent

*November 2012/ Revised 11.21.12*
Educational Programs

Associate’s Degrees, Certificates of Achievement, and Skills Recognition Awards offered at Modesto Junior College

www.mjc.edu
Moving Forward


**animals Science PROGRAM**

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

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ANSC 200</td>
<td>Introduction to Animal Science</td>
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<td>ANSC 201</td>
<td>General Animal Science and Nutrition</td>
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<td>ANSC 211</td>
<td>Introduction to Meat Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 203</td>
<td>Introduction to Sheep Science</td>
<td>3</td>
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<tr>
<td>ANSC 207</td>
<td>Equine Science</td>
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<tr>
<td>ANSC 210</td>
<td>Livestock Selection and Evaluation</td>
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</tr>
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<td>ANSC 211</td>
<td>Introduction to Wildlife Science</td>
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</tr>
<tr>
<td>ANSC 234</td>
<td>Livestock, Feeding &amp; Maintenance</td>
<td>3</td>
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</table>

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

- Total units for A.S. major: **30**

---

**Agriculture: Sales, Service PROGRAM**

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

**A.S. Degree: Agriculture: Sales, Service**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AG 115</td>
<td>Introduction to Agricultural Education and Careers</td>
<td>2</td>
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<tr>
<td>AG 146A-D</td>
<td>Work Experience (for a total of 4 units)**</td>
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</tr>
<tr>
<td>AG 249*</td>
<td>Agricultural Internship**</td>
<td>4</td>
</tr>
<tr>
<td>AGEC 215</td>
<td>Agricultural Marketing</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 225</td>
<td>Agricultural Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 200</td>
<td>Introduction to Mechanical Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

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

- Total units for certificate of achievement: **32**

---

**Certificate of Achievement: Agriculture: Sales, Service Technician**

- Students must complete the following courses. Each course must be completed with a grade of C or better.

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEC 210</td>
<td>Elements of Agricultural Economics</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 215</td>
<td>Agricultural Marketing</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 225</td>
<td>Agricultural Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 200</td>
<td>Introduction to Mechanical Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

**III. MAJOR REQUIRED COURSES - COMPLETE 18 UNITS**

- Total units in A.S. major: **30**

---

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

- Total units in A.S. major: **30**

---

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

- Total units in A.S. major: **30**

---

**Unit in A.S. Major: **

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT: **32

---

**PLA C EHOLD E R TEXT**

**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**

**The preferred sequence of courses within a 4 semester program.**

**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.**
EDUCATIONAL PROGRAMS IN

AGRICULTURE & ENVIRONMENTAL SCIENCES

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

INSTRUCTION IN:
- Agriculture (AG)
- Agriculture, General (AGGE)
- Animal Science (ANSC)
- Environmental Horticultural Science (EHS)
- 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 Industry, AS
- Dairy Industry Technician, C
- Dairy Science, AS
- Environmental Horticultural Science, AS
- Food Processing, AS, C
- 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

EDUCATIONAL PROGRAMS IN
AGRICULTURE & ENVIRONMENTAL SCIENCES
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 the requirements of technical programs, students 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 diesel mechanics 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGM 215</td>
<td>[NP] Machinery Management</td>
</tr>
<tr>
<td>AGM 221</td>
<td>[NP] Equipment Diagnosis and Repair</td>
</tr>
<tr>
<td>AGM 240</td>
<td>[NP] Truck/Tractor Power Trains</td>
</tr>
<tr>
<td>AGM 242</td>
<td>[NP] Diesel Engine Overhaul</td>
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<tr>
<td>AGM 245</td>
<td>[NP] Diesel Engine Fuel Systems and Diagnosis</td>
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<tr>
<td>AUTEC 317</td>
<td>[NP] Automotive Air Conditioning</td>
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</table>

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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 249</td>
<td>[NP] Agriculture Internship</td>
</tr>
<tr>
<td>AG 349A-D</td>
<td>[NP] Work Experience ** (for a total of 4 units)</td>
</tr>
<tr>
<td>AGM 249</td>
<td>[NP] Work Experience ** (for a total of 4 units)</td>
</tr>
</tbody>
</table>

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE 210</td>
<td>[NP] Elements of Agricultural Economics</td>
</tr>
<tr>
<td>AGE 225</td>
<td>[NP] Agriculture-Computer Applications</td>
</tr>
</tbody>
</table>

III. MAJOR REQUIRED COURSES - COMPLETE 12 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>AUTEC 200</td>
<td>[1,2] Agriculture Internship **</td>
</tr>
<tr>
<td>AUTEC 210</td>
<td>[NP] General Agriculture</td>
</tr>
<tr>
<td>AUTEC 220</td>
<td>[3,4] Agri-Business Management</td>
</tr>
<tr>
<td>AUTEC 225</td>
<td>[NP] Agri-Business Computer Applications</td>
</tr>
</tbody>
</table>

IV. ELECTIVE COURSES - COMPLETE 4 UNITS

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

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

**Required
Agricultural Laboratory Technician

Expected Student Learning Outcomes

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 a Certificate of Achievement in Agriculture Laboratory Technician, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 65) or the University Preparation Pathway (p. 66) 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)** ....................................................... 1 OR

II. Agriculture Science Breadth Courses—Complete 9 Units

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

III. Agriculture Major Courses—Complete 14 Units

AG 249 [NP] Agriculture Internship** ......................................................................... 4
AGM 225 [NP] Agriculture Computer Applications ....................................................... 3
AG 280 [NP] Agricultural Computations ....................................................................... 3
FDP 378 [2] Food Laboratory Instruments ................................................................... 1
FDP 379-387 [1] Select course in consultation with advisor ............................................ 1-2

IV. Agriculture Major Electives—Complete 6 Units

CHEM 101 [NP] General Chemistry 1 ........................................................................ 3 OR
CHEM 142 [NP] Introductory College Chemistry .......................................................... 3 OR
CHEM 144 [NP] Fundamentals of Organic and Biochemistry ....................................... 3 OR
MICRO 101 [NP] Microbiology .................................................................................. 4
FDP 279-387 [1] Select course in consultation with advisor ............................................ 1-2

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT .................................................. 34

**Required

INACTIVATED 03/27/2012
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 Agricultural 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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 115 [T]</td>
<td>Introduction to Agricultural Education and Careers</td>
<td>1</td>
</tr>
<tr>
<td>AG 349A-D [NP]</td>
<td>Work Experience (for a total of 4 units)**</td>
<td>4 OR</td>
</tr>
<tr>
<td>AG 249 [NP]</td>
<td>Agriculture Internship**</td>
<td>4</td>
</tr>
</tbody>
</table>

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLSC 200 [NP]</td>
<td>Introduction to Plant Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 200 [NP]</td>
<td>Introduction to Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>NR 200 [NP]</td>
<td>Soils</td>
<td>4</td>
</tr>
<tr>
<td>AGM 200 [NP]</td>
<td>Introduction to Mechanical Technology</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGEC 225 [NP]</td>
<td>Agriculture Computer Applications</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGEC 210 [NP]</td>
<td>Elements of Agricultural Economics</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGEC 200 [NP]</td>
<td>Agriculture Accounting and Analysis</td>
<td>3</td>
</tr>
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III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AGM 210 [NP]</td>
<td>Agricultural Welding</td>
<td>3</td>
</tr>
<tr>
<td>EHS 260 [NP]</td>
<td>Beginning Floral Design</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 201 [NP]</td>
<td>Beef Cattle Science</td>
<td>3 OR</td>
</tr>
<tr>
<td>ANSC 202 [NP]</td>
<td>Swine Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 203 [NP]</td>
<td>Sheep Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 210 [NP]</td>
<td>Poultry Science</td>
<td>3</td>
</tr>
<tr>
<td>EHS 210 [NP]</td>
<td>Introduction to Environmental Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>PLS 200 [NP]</td>
<td>Fruit Science</td>
<td>3</td>
</tr>
</tbody>
</table>

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 sciences, 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. 65) which include completion of the requirements below. See advisor for selection of courses.

REQUIRED COURSES - TAKE 4 COURSES.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>AGEC 210</td>
<td>Elements of Agricultural Economics</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 200 [NP]</td>
<td>Introduction to Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>NR 200 [NP]</td>
<td>Soils</td>
<td>4</td>
</tr>
<tr>
<td>PLS 200 [NP]</td>
<td>Introduction to Plant Science</td>
<td>3</td>
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</table>

ELECTIVE COURSES - TAKE 5 UNITS.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEC 200 [NP]</td>
<td>Agricultural Accounting and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 225 [NP]</td>
<td>Agriculture Computing Applications</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 280 [NP]</td>
<td>Agricultural Sales and Service</td>
<td>3</td>
</tr>
<tr>
<td>AGM 200 [NP]</td>
<td>Introduction to Mechanical Technology</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGM 215 [NP]</td>
<td>Machinery Management</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGM 220 [NP]</td>
<td>Industrial/Agricultural Machinery</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGM 230 [NP]</td>
<td>Field Surveying</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 201 [NP]</td>
<td>Beef Cattle Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 202 [NP]</td>
<td>Swine Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 203 [NP]</td>
<td>Sheep Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 214 [NP]</td>
<td>Livestock Feeding and Nutrition</td>
<td>3</td>
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<tr>
<td>ANSC 215 [NP]</td>
<td>Animal Health and Sanitation</td>
<td>3</td>
</tr>
<tr>
<td>ECON 101 [NP]</td>
<td>Economic Principles: Macroeconomics</td>
<td>3</td>
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<tr>
<td>EHS 210 [NP]</td>
<td>Introduction to Environmental Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>EHS 276 [NP]</td>
<td>Landscape Maintenance</td>
<td>3</td>
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<td>MATH 111 [NP]</td>
<td>Applied College Algebra</td>
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<td>MATH 134 [NP]</td>
<td>Elementary Statistics</td>
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<td>MATH 138 [NP]</td>
<td>Calculus for Business and Social Sciences</td>
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<tr>
<td>NR 220 [NP]</td>
<td>Introductory Forestry</td>
<td>3</td>
</tr>
<tr>
<td>NR 222 [NP]</td>
<td>Native Tree and Shrub Identification</td>
<td>3</td>
</tr>
<tr>
<td>PLS 205 [NP]</td>
<td>Field Crops</td>
<td>3 OR</td>
</tr>
<tr>
<td>PLS 235 [NP]</td>
<td>Vegetable Crops</td>
<td>3 OR</td>
</tr>
<tr>
<td>PLS 250 [NP]</td>
<td>Plant Nutrition and Fertilizer</td>
<td>3 OR</td>
</tr>
<tr>
<td>PLS 260 [NP]</td>
<td>Plant Disease Control</td>
<td>3</td>
</tr>
</tbody>
</table>

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

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 .............................................................. OR
SPCOM 102 [NP] Introduction to Human Communication .................................................. OR
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. 65) or the University Preparation Pathway (p. 65) 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
SPCOM 100 [NP] Fundamentals of Public Speaking .............................................................. OR
SPCOM 102 [NP] Introduction to Human Communication .................................................. OR
ANY COURSE NOT TAKEN IN CORE MAJOR OR OPTIONS.

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

**Required
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" (OFP) 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. 69) or the University Preparation Pathway (p. 65) 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

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**

**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 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

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AGM 210</td>
<td>Agriculture Welding</td>
<td>3</td>
</tr>
<tr>
<td>AGM 214</td>
<td>Equipment Service and Safety</td>
<td>1</td>
</tr>
<tr>
<td>AGM 241</td>
<td>Diesel Engine Principles</td>
<td>3</td>
</tr>
<tr>
<td>AGM 243</td>
<td>Heavy Machinery Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>AGM 280</td>
<td>Mobile Machinery Hydraulic Systems</td>
<td>3</td>
</tr>
<tr>
<td>AGM 289</td>
<td>Principles of Power Mechanics/Small Engines</td>
<td>3</td>
</tr>
<tr>
<td>AGM 289</td>
<td>Principles of Power Mechanics/Small Engines</td>
<td>3</td>
</tr>
<tr>
<td>AGM 289</td>
<td>Principles of Power Mechanics/Small Engines</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT: 16

Commercial Floristry

Certificate of Achievement: Commercial Floristry Technician

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Commercial Floristry Technician will be able to:

1. List at least five career opportunities in the floriculture 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 floriculture industry.
3. Identify 100 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 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG</td>
<td>115 [1] Introduction to Agricultural Education and Careers</td>
<td>1</td>
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<tr>
<td>AG</td>
<td>349A-D [1] Work Experience (total of 4 units)**</td>
<td>4</td>
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<tr>
<td>AG</td>
<td>249 [1] Agriculture Internship**</td>
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II. AGRICULTURE SCIENCE BREADTH CORE - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PLSC 200</td>
<td>[1] Introduction to Plant Science</td>
<td>3</td>
</tr>
<tr>
<td>NR 200</td>
<td>[NP] Soils</td>
<td>4</td>
</tr>
<tr>
<td>AGM 200</td>
<td>[NP] Introduction to Mechanical Technology</td>
<td>3</td>
</tr>
<tr>
<td>AGECC 225</td>
<td>[NP] Agriculture Computer Applications</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGECC 210</td>
<td>[1] Elements of Agriculture Economics</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGECC 200</td>
<td>[2] Agriculture Accounting and Analysis</td>
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III. AGRICULTURE MAJOR COURSES - COMPLETE 27 UNITS

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>EHS 201</td>
<td>[1,2] Plant Identification and Usage 1</td>
<td>3</td>
</tr>
<tr>
<td>EHS 210</td>
<td>[1] Introduction to Environmental Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>EHS 212</td>
<td>[2,3,4] Horticulture Crop Production</td>
<td>3</td>
</tr>
<tr>
<td>EHS 280</td>
<td>[1] Beginning Floral Design</td>
<td>3</td>
</tr>
<tr>
<td>EHS 281</td>
<td>[2,3,4] Advanced Floral Design</td>
<td>3</td>
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<tr>
<td>EHS 282</td>
<td>[5,6] Florist Shop Management</td>
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<td>EHS 385</td>
<td>[1,2] Commercial Florist Production</td>
<td>4</td>
</tr>
<tr>
<td>SPSCOM 102</td>
<td>[1] Introduction to Human Communication</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 259</td>
<td>[NP] Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 255</td>
<td>[NP] Plant Pest Control</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT: 41

**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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

I. AGRICULTURE CAREER CORE - COMPLETE 5 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AG 115</td>
<td>Introduction to Agricultural Education and Careers</td>
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<tr>
<td>AG 349A-D</td>
<td>Work Experience (total of 4 units)**</td>
<td>4 OR</td>
</tr>
<tr>
<td>AG 249</td>
<td>Agriculture Internship**</td>
<td>4</td>
</tr>
</tbody>
</table>

II. AGRICULTURE SCIENCE BREADTH CORE - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ANSC 200</td>
<td>[2,3,4] Introduction to Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>NR 200</td>
<td>[2] Soils</td>
<td>4</td>
</tr>
<tr>
<td>AGM 200</td>
<td>[2,3,4] Introduction to Mechanical Technology</td>
<td>3</td>
</tr>
<tr>
<td>AGE 225</td>
<td>[2,3,4] Agriculture Computer Applications</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGE 210</td>
<td>[2,3,4] Elements of Agriculture Economics</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGE 200</td>
<td>[2,3,4] Agriculture Accounting and Analysis</td>
<td></td>
</tr>
</tbody>
</table>

III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLSC 200</td>
<td>[1] Introduction to Plant Science</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 215</td>
<td>[1] Vegetable Crops</td>
<td>3</td>
</tr>
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</table>

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 7 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 280</td>
<td>[1] Agricultural Computations</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 255</td>
<td>[NP] Plant Pest Control</td>
<td>3</td>
</tr>
<tr>
<td>AGM 235</td>
<td>[2,3,4] Irrigation and Drainage</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 260</td>
<td>[2,3,4] Plant Disease Control</td>
<td>3</td>
</tr>
</tbody>
</table>

Any course not taken in Area III above

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

**Required

Dairy Industry

PROGRAM

This program will develop skills and knowledge to work in the dairy industry or to transfer to a university. Contact the division office in the Agriculture Building for advising assistance.

Certificate of Achievement:

Dairy Industry Technician

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Dairy Industry 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 Agriculture 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 advantages/ benefits provided by that industry.

CERTIFICATE REQUIREMENTS

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

I. AGRICULTURE CAREER COURSES - COMPLETE 2 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 349B</td>
<td>Dairy Processing Work Experience</td>
<td>2</td>
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</table>

II. AGRICULTURE BREADTH COURSES - COMPLETE 12 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAIND 301</td>
<td>Good Manufacturing Practices and Sanitation</td>
<td>3</td>
</tr>
<tr>
<td>DAIND 302</td>
<td>Fluid Stream</td>
<td>3</td>
</tr>
<tr>
<td>DAIND 303</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>DAIND 304</td>
<td>Sensory Evaluation &amp; Grading</td>
<td>3</td>
</tr>
<tr>
<td>DAIND 305</td>
<td>WACCP and Food Safety</td>
<td>3</td>
</tr>
<tr>
<td>DAIND 306</td>
<td>Dairy Industry Employability Skills</td>
<td>3</td>
</tr>
<tr>
<td>DAIND 307</td>
<td>Process Equipment &amp; Engineering</td>
<td>3</td>
</tr>
<tr>
<td>DAIND 308</td>
<td>Laboratory Skills</td>
<td>3</td>
</tr>
<tr>
<td>DAIND 309</td>
<td>Dairy Products &amp; Marketing</td>
<td>3</td>
</tr>
<tr>
<td>DAIND 310</td>
<td>Transportation of Dairy Products</td>
<td>3</td>
</tr>
<tr>
<td>DAIND 311</td>
<td>Cheese and Whey Processing</td>
<td>3</td>
</tr>
<tr>
<td>DAIND 312</td>
<td>Warehousing/Dry &amp; Refrigerated</td>
<td>3</td>
</tr>
</tbody>
</table>

III. AGRICULTURE MAJOR ELECTIVE UNITS - COMPLETE 3 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEC 225</td>
<td>[NP] Agriculture Computer Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

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

Check against 01/27/12 minutes

Expedited for 2012-13 catalog
A.S. Degree: **Dairy Industry**

**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 Industry will be able to:

1. Give specific examples of careers in the Animal Agriculture industry and briefly describe the prerequisites for those 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 the 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. 69) or the University Preparation Pathway (p. 65) 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
- AG 249 (NP): Agriculture Internship 4

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

- ANSC 226 (NP): Dairy Breeding & Selection 3
- ANSC 224 (NP): Dairy Feeds & Feeding 3
- ANSC 217 (NP): Advanced Breeding & Artificial Insemination 4
- ANSC 215 (NP): Animal Health and Sanitation 3
- ANSC 220 (NP): Dairy Industry/Dairy Science 3
- ANSC 221 (NP): Dairy Cattle Selection & Evaluation 3
- ANSC 222 (NP): Milk Production & Technology 3
- AGM 200 (NP): Introduction to Mechanical Technology 3
- AG 249 (NP): Agriculture Internship** 4
- AG 349 A-D (NP): Work Experience (total of 4 units)** 4

**III. AGRICULTURE MAJOR COURSES - COMPLETE 12 UNITS**

- DVM 301 (NP): Good Manufacturing Practices and Sanitation 1
- DVM 302 (NP): Fluid Stream 1
- DVM 303 (NP): Industrial Safety 1
- DVM 304 (NP): Sensory Evaluation & Grading 1
- DVM 305 (NP): Food Safety/NSFCC 1
- DVM 306 (NP): Dairy Industry Employability Skills 1
- DVM 307 (NP): Process Equipment & Engineering 1
- DVM 308 (NP): Laboratory Skills 1
- DVM 310 (NP): Dairy Products & Marketing 1
- DVM 311 (NP): Cheese and Whey Processing 1
- DVM 312 (NP): Warehousing/Dry & Refrigerated 1

**IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 4 UNITS**

- ANSC 232 (NP): Milk Production & Technology 4

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

**INACTIVATED 11/06/2012**
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. 69) or the University Preparation Pathway (p. 65) 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-0 ** [NP] Work Experience (total of 4 units)** .................................................. 4 OR
Ag 249 ** [NP] Agriculture Internship** ............................................................... 4

II. AGRICULTURE SCIENCE BREATH 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 OR
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 Mechnized Agriculture ........................................ 1-4
EHS 212 [1,2] Crop Production ............................................................................. 3
EHS 215 [3] Landscape Design ............................................................................. 3
EHS 220 [3,4] Turfgrass Management ................................................................. 3
EHS 235 [NP] Plant Propagation/Production ....................................................... 3
EHS 250 [NP] Landscape Irrigation .............................................................. 3
EHS 276 [1,2] Landscape Maintenance ................................................................. 3
EHS 278 [3,4] Landscape Construction and Installation ........................................ 3
EHS 280 [1] Beginning 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.180)

Food Processing PROGRAM

Certificate of Achievement: Food Processing

Students who earn certificate of Achievement in Food Processing will be able to:

1. Demonstrate mastery of the technical and soft skills needed for successful employment in the food processing industry.
2. Demonstrate proficiency in agriculture sciences/engineering by employing the scientific methods to solve agricultural problems.
3. Demonstrate proficiency in agriculture sciences/engineering by employing the scientific methods to solve agricultural problems.
4. Demonstrate proficiency in agriculture sciences/engineering by employing the scientific methods to solve agricultural problems.

I. AGRICULTURE CAREER CORE – COMPLETE 5 UNITS

Ag 115 [1] Introduction to Agricultural Education and Careers ........................................ 1
Ag 349A-0 ** [NP] Work Experience (total of 4 units)** .................................................. 4 OR
Ag 249** [NP] Agriculture Internship** ............................................................... 4

II. AGRICULTURE SCIENCE COURSES – COMPLETE 9 UNITS

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

III. AGRICULTURE MAJOR COURSES – COMPLETE 15 UNITS AS SPECIFIED:

FDP 200 [1] Basic Food Processing ........................................................................ 3
AG 376 [2] Basic Science and Laboratory Techniques .............................................. 3
Ag 280 [NP] Agricultural Computations*** ...................................................... 1½

AND Complete a minimum of 6 units from the list below

FDP 300 [NP] Certified Professional Food Manager Training ........................ 1½
FDP 301 [NP] Certified WSCP Manager Training .............................................. 1½
FDP 302 [NP] Introduction to Wine Evaluation .................................................... 1½
FDP 317 [NP] Food Plant Laboratory Procedures .................................................... 1½
FDP 327 [NP] Food Laboratory Instruments .......................................................... 1½
FDP 339 [NP] Food Products Gaging ................................................................. 1½
FDP 350 [NP] Food Products Microanalysis-A ...................................................... 1½
FDP 381 [NP] Food Products Microanalysis-B, Mold Counting ......................... 1½
FDP 382 [NP] Food Products Microanalysis-C ...................................................... 1½
FDP 383 [NP] Enzymes in the Food Industry .......................................................... 1½
FDP 384 [NP] Food Laboratory Chemistry Procedures ........................................ 1½
FDP 385 [NP] Food Processing Sanitation & Cleanup ............................................. 1½

IV. AGRICULTURE MAJOR ELECTIVES – COMPLETE 6 UNITS

Ag 285 [NP] Agricultural Communications ...................................................... 3
MICRO 101 [NP] Microbiology ........................................................................ 4

Any courses not taken in IV. and III. may be used to complete IV.

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

*Recommended
**Required
A.S. Degree: Food Processing

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 62) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>AG 115</td>
<td>1</td>
<td>Introduction to Agricultural Education and Careers</td>
</tr>
<tr>
<td>AG 349 A-D</td>
<td>4 OR</td>
<td>Work Experience (total of 4 units)***</td>
</tr>
<tr>
<td>AG 249*</td>
<td>4</td>
<td>Agriculture Internship**</td>
</tr>
</tbody>
</table>

*Work experience internship must be associated with food processing industry.

**or higher math strongly recommended

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENSCI 109</td>
<td>3</td>
<td>Introduction to Geographic Information Systems</td>
</tr>
<tr>
<td>NR 379</td>
<td>1</td>
<td>Wildland Fire Control</td>
</tr>
<tr>
<td>NR 376</td>
<td>3</td>
<td>Forestry Technology</td>
</tr>
<tr>
<td>NR 224</td>
<td>3</td>
<td>Intro to Forestry Measurement</td>
</tr>
<tr>
<td>NR 222</td>
<td>3</td>
<td>Native Tree &amp; Shrub Identification</td>
</tr>
<tr>
<td>ENSCI 108</td>
<td>3</td>
<td>Environmental Conservation</td>
</tr>
<tr>
<td>AGM 200</td>
<td>3</td>
<td>Introduction to Mechanical Technology</td>
</tr>
<tr>
<td>AGEC 225*</td>
<td>3 OR</td>
<td>Agriculture Computer Applications</td>
</tr>
<tr>
<td>AGEC 210</td>
<td>3</td>
<td>Elements of Agriculture Economics</td>
</tr>
<tr>
<td>AGEC 200</td>
<td>3</td>
<td>Agriculture Accounting and Analysis</td>
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III. AGRICULTURE MAJOR COURSES - COMPLETE 10 UNITS

<table>
<thead>
<tr>
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<th>Units</th>
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</tr>
</thead>
<tbody>
<tr>
<td>AG 285</td>
<td>3</td>
<td>Agricultural Communications</td>
</tr>
<tr>
<td>AG 280</td>
<td>3</td>
<td>Agricultural Computation</td>
</tr>
<tr>
<td>AGM 200</td>
<td>3</td>
<td>Machinery Management</td>
</tr>
<tr>
<td>AG 115</td>
<td>1</td>
<td>Introduction to Agricultural Education and Careers</td>
</tr>
<tr>
<td>AG 349 A-D</td>
<td>4 OR</td>
<td>Work Experience (maximum completions total 4 units)</td>
</tr>
</tbody>
</table>

***or higher math strongly recommended

IV. AGRICULTURE MAJOR COURSES - COMPLETE 6 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 285*</td>
<td>3</td>
<td>Agricultural Computation</td>
</tr>
<tr>
<td>AGM 200</td>
<td>3</td>
<td>Field Surveying</td>
</tr>
<tr>
<td>AG 285</td>
<td>3</td>
<td>Agricultural Communications</td>
</tr>
<tr>
<td>AGM 215</td>
<td>3</td>
<td>Machinery Management</td>
</tr>
<tr>
<td>EHS 276</td>
<td>3</td>
<td>Landscape Maintenance</td>
</tr>
</tbody>
</table>

Any courses not taken in I, II, or III may be used to complete IV

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

Recommended

**Required

***or higher math strongly recommended

INACTIVATED 03/27/2012

Natural 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 115</td>
<td>1</td>
<td>Introduction to Agricultural Education and Careers</td>
</tr>
<tr>
<td>AG 349 A-D</td>
<td>4 OR</td>
<td>Work Experience (maximum completions total 4 units)</td>
</tr>
<tr>
<td>AG 249</td>
<td>4</td>
<td>Agriculture Internship**</td>
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</table>

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENSCI 109</td>
<td>3</td>
<td>Introduction to Geographic Information Systems</td>
</tr>
<tr>
<td>NR 222</td>
<td>3</td>
<td>Native Tree &amp; Shrub Identification</td>
</tr>
<tr>
<td>NR 224</td>
<td>3</td>
<td>Intro to Forestry Measurement</td>
</tr>
<tr>
<td>NR 376</td>
<td>2</td>
<td>Forestry Technology</td>
</tr>
<tr>
<td>NR 379</td>
<td>1</td>
<td>Wildland Fire Control</td>
</tr>
<tr>
<td>ENSCI 108</td>
<td>4</td>
<td>Introduction to Geographic Information Systems</td>
</tr>
</tbody>
</table>

III. AGRICULTURE MAJOR COURSES - COMPLETE 15 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENSCI 108</td>
<td>2</td>
<td>Environmental Conservation</td>
</tr>
<tr>
<td>NR 220</td>
<td>1</td>
<td>Introductory Forestry</td>
</tr>
<tr>
<td>NR 222</td>
<td>2,3</td>
<td>Native Tree &amp; Shrub Identification</td>
</tr>
<tr>
<td>NR 224</td>
<td>3</td>
<td>Intro to Forestry Measurement</td>
</tr>
<tr>
<td>NR 376</td>
<td>2</td>
<td>Forestry Technology</td>
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<td>NR 379</td>
<td>3</td>
<td>Wildland Fire Control</td>
</tr>
<tr>
<td>ENSCI 108</td>
<td>4</td>
<td>Introduction to Geographic Information Systems</td>
</tr>
</tbody>
</table>

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 6 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 280</td>
<td>3</td>
<td>Agricultural Computation</td>
</tr>
<tr>
<td>AGM 230</td>
<td>3</td>
<td>Field Surveying</td>
</tr>
<tr>
<td>AG 285</td>
<td>3</td>
<td>Agricultural Communications</td>
</tr>
<tr>
<td>AGM 215</td>
<td>3</td>
<td>Machinery Management</td>
</tr>
<tr>
<td>EHS 276</td>
<td>3</td>
<td>Landscape Maintenance</td>
</tr>
</tbody>
</table>

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 resource 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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

I. FORESTRY CAREER COURSES - COMPLETE 5 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td><strong>AG</strong> 115 [1]</td>
<td>Introduction to Agricultural Education and Careers</td>
</tr>
<tr>
<td><strong>AG 349-A-D (NP)</strong></td>
<td>Work Experience (total of 4 units)**</td>
</tr>
<tr>
<td><strong>AG 249 (NP)</strong></td>
<td>Agriculture Internship**</td>
</tr>
</tbody>
</table>

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLSC 200 [1,2]</strong></td>
<td>Introduction to Plant Science</td>
</tr>
<tr>
<td><strong>NR 200 [1,2]</strong></td>
<td>Soils</td>
</tr>
<tr>
<td><strong>AGM 200 (NP)</strong></td>
<td>Introduction to Mechanical Technology</td>
</tr>
<tr>
<td><strong>AGEC 225 (NP)</strong></td>
<td>Agriculture Computer Applications</td>
</tr>
<tr>
<td><strong>AGEC 210 (NP)</strong></td>
<td>Elements of Agricultural Economics</td>
</tr>
<tr>
<td><strong>AGEC 200 (NP)</strong></td>
<td>Agriculture Accounting and Analysis</td>
</tr>
</tbody>
</table>

III. FORESTRY MAJOR COURSES - COMPLETE 12 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NR 220 [1]</strong></td>
<td>Introduction to Forestry</td>
</tr>
<tr>
<td><strong>NR 222 [2,3]</strong></td>
<td>Native Tree &amp; Shrub Identification</td>
</tr>
<tr>
<td><strong>ENSCI 108 [2]</strong></td>
<td>Environmental Conservation</td>
</tr>
<tr>
<td><strong>ENEG 102 [3]</strong></td>
<td>Introduction to Geographic Information Systems</td>
</tr>
<tr>
<td><strong>NR 376 [2]</strong></td>
<td>Forest Technology</td>
</tr>
</tbody>
</table>

IV. FORESTRY MAJOR ELECTIVES - COMPLETE 4 UNITS

Any Natural Resources, Agriculture Economics or Plant Science course not listed or used above | 3 |

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AG 280 (NP)</strong></td>
<td>Agricultural Computations</td>
</tr>
<tr>
<td><strong>AGM 230 (NP)</strong></td>
<td>Field Surveying</td>
</tr>
<tr>
<td><strong>AGM 285 (NP)</strong></td>
<td>Agricultural Communications</td>
</tr>
<tr>
<td><strong>AGM 215 (NP)</strong></td>
<td>Machinery Management</td>
</tr>
</tbody>
</table>

**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 horticulture).
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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

I. AGRICULTURE CAREER COURSES - COMPLETE 5 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AG 115 [1]</strong></td>
<td>Introduction to Agricultural Education and Careers</td>
</tr>
<tr>
<td><strong>AG 349-A-D (NP)</strong></td>
<td>Work Experience (total of 4 units)**</td>
</tr>
<tr>
<td><strong>AG 249 (NP)</strong></td>
<td>Agriculture Internship**</td>
</tr>
</tbody>
</table>

II. AGRICULTURE SCIENCE BREADTH COURSES - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLSC 200 [1,2]</strong></td>
<td>Introduction to Plant Science</td>
</tr>
<tr>
<td><strong>NR 200 [1,2]</strong></td>
<td>Soils</td>
</tr>
<tr>
<td><strong>AGM 200 [NP]</strong></td>
<td>Introduction to Mechanical Technology</td>
</tr>
<tr>
<td><strong>AGEC 225 [NP]</strong></td>
<td>Agriculture Computer Applications</td>
</tr>
<tr>
<td><strong>AGEC 210 [NP]</strong></td>
<td>Elements of Agricultural Economics</td>
</tr>
<tr>
<td><strong>AGEC 200 [NP]</strong></td>
<td>Agriculture Accounting and Analysis</td>
</tr>
<tr>
<td><strong>AGEC 225 [NP]</strong></td>
<td>Agriculture Computer Applications</td>
</tr>
<tr>
<td><strong>AGEC 210 [NP]</strong></td>
<td>Elements of Agricultural Economics</td>
</tr>
<tr>
<td><strong>AGEC 200 [NP]</strong></td>
<td>Agriculture Accounting and Analysis</td>
</tr>
</tbody>
</table>

III. AGRICULTURE MAJOR COURSES - COMPLETE 9 UNITS

**Complete 3 units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLSC 230 [1,2]</strong></td>
<td>Fruit Science</td>
</tr>
</tbody>
</table>

**Complete 6 units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLSC 241 [3,4]</strong></td>
<td>Viticulture</td>
</tr>
<tr>
<td><strong>PLSC 255 [3,4]</strong></td>
<td>Plant Pest Control</td>
</tr>
<tr>
<td><strong>PLSC 200 [1,2]</strong></td>
<td>Introduction to Plant Science</td>
</tr>
</tbody>
</table>

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 7 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLSC 235 [3,4]</strong></td>
<td>Plant Propagation/Production Planting &amp; Varieties</td>
</tr>
<tr>
<td><strong>PLSC 250 [3,4]</strong></td>
<td>Plant Nutrition and Fertilizers</td>
</tr>
<tr>
<td><strong>AGM 235 [3,4]</strong></td>
<td>Irrigation and Drainage</td>
</tr>
<tr>
<td><strong>PLSC 260 [NP]</strong></td>
<td>Plant Disease Control</td>
</tr>
</tbody>
</table>

Any class not already taken in Area III

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

**Required**
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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGM 200</td>
<td>3</td>
</tr>
<tr>
<td>AGM 214</td>
<td>1</td>
</tr>
<tr>
<td>AGM 215</td>
<td>2</td>
</tr>
<tr>
<td>AGE 200</td>
<td>3</td>
</tr>
<tr>
<td>AGE 220</td>
<td>3</td>
</tr>
<tr>
<td>AGE 225</td>
<td>3</td>
</tr>
</tbody>
</table>

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

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 100 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 115</td>
<td>1</td>
</tr>
<tr>
<td>AG 349-A-D</td>
<td>4 OR</td>
</tr>
<tr>
<td>AG 249</td>
<td>4</td>
</tr>
</tbody>
</table>

II. AGRICULTURE BREADTH CORE UNITS - COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGM 200</td>
<td>3</td>
</tr>
<tr>
<td>NR 200</td>
<td>4</td>
</tr>
<tr>
<td>PLSC 200</td>
<td>3</td>
</tr>
<tr>
<td>AEC 200</td>
<td>3 OR</td>
</tr>
<tr>
<td>AEC 225</td>
<td>3</td>
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</table>

III. AGRICULTURE MAJOR COURSES - COMPLETE 20 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>EHS 201</td>
<td>3</td>
</tr>
<tr>
<td>EHS 202</td>
<td>3</td>
</tr>
<tr>
<td>EHS 210</td>
<td>3</td>
</tr>
<tr>
<td>EHS 220</td>
<td>3</td>
</tr>
<tr>
<td>EHS 276</td>
<td>3</td>
</tr>
<tr>
<td>EHS 278</td>
<td>3</td>
</tr>
<tr>
<td>EHS 215</td>
<td>3</td>
</tr>
</tbody>
</table>

IV. AGRICULTURE MAJOR ELECTIVES - COMPLETE 7 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 280</td>
<td>3</td>
</tr>
<tr>
<td>AG 285</td>
<td>3</td>
</tr>
<tr>
<td>NR 222</td>
<td>3</td>
</tr>
<tr>
<td>AGM 230</td>
<td>2</td>
</tr>
<tr>
<td>NR 230</td>
<td>3</td>
</tr>
<tr>
<td>AGM 215</td>
<td>3</td>
</tr>
<tr>
<td>EHS 250</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 250</td>
<td>3</td>
</tr>
</tbody>
</table>

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

**Required
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.

Certificate of Achievement: Landscape Design

EXPECTED STUDENT LEARNING OUTCOMES

Students who earn a Certificate of Achievement in Landscape Design 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 100 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.

REQUIRED COURSES - COMPLETE 24 UNITS
NR 200 [2] Soils ................................................................. 4
EHS 201 [1,2] Plant Identification and Use ........................... 3
EHS 202 [1,2] Plant Identification and Use ........................... 3
EHS 210 [1] Introduction to Environmental Horticulture ...... 3
ARCH 121 [1] Architectural Graphics & Design 1 ............. 4
AG 349A-D [NP] Agriculture Work Experience 4

ELECTIVE COURSES - COMPLETE 18 UNITS
AG 115 [1] Introduction to Agricultural Education and Careers ................................................................. 1
ARCH 121 [3] Architectural Drafting 1 ............................... 4

Complete 15 units from list below:
EHS 276 [NP] Landscape Maintenance ................................... 3
EHS 278 [NP] Landscape Construction and Installation ........ 3
ARCH 106 [NP] Materials of Construction ........................... 2
ARCH 107 [NP] Materials of Construction Lab ................... 1
NR 222 [NP] Native Tree & Shrub Identification ................. 3
ARCH 162 [NP] Architectural Design 1 ................................. 4
AGM 230 [NP] Field Surveying ............................................. 2
ENGT 210 [NP] Introduction to CAD ................................. 3
BIO 110 [NP] Plant Biology ............................................... 3
CMPS 201 [NP] General Computer Literacy ....................... 2
AGEC 225 [NP] Agriculture Computer Applications .......... 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT.......................... 42

MODIFICATION PENDING 01/22/13 NOT YET REFLECTED

PROGRAM

Mechanized Agriculture Technician

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

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 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 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 282 [4] Farm Construction and Materials Lab ............... 4

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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

I. AGRICULTURE CAREER CORE – COMPLETE 5 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 115</td>
<td>Introduction to Agricultural Education</td>
<td>1</td>
</tr>
<tr>
<td>AG 249</td>
<td>Agriculture Internship**</td>
<td>4 OR</td>
</tr>
<tr>
<td>AG 349 A-D</td>
<td>Agriculture Work Experience **</td>
<td>4</td>
</tr>
</tbody>
</table>

II. AGRICULTURE SCIENCE BREADTH CORE – COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLSC 200</td>
<td>Introduction to Plant Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 200</td>
<td>Introduction to Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>NR 200</td>
<td>Soils</td>
<td>4</td>
</tr>
<tr>
<td>AGEC 225</td>
<td>Agriculture Computer Applications</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGEC 210</td>
<td>Elements of Agricultural Economics</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGEC 200</td>
<td>Agricultural Accounting and Analysis</td>
<td>3</td>
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</tbody>
</table>

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

FABRICATION OPTION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGM 200</td>
<td>Introduction to Mechanical Technology</td>
<td>3</td>
</tr>
<tr>
<td>AGM 210</td>
<td>Agricultural Welding</td>
<td>3</td>
</tr>
<tr>
<td>AGM 262</td>
<td>Hydraulics/Pneumatics</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGM 280</td>
<td>Mobile Machinery Hydraulic System</td>
<td>3</td>
</tr>
<tr>
<td>AGM 251</td>
<td>Farm Construction &amp; Materials</td>
<td>4</td>
</tr>
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</table>

POWER OPTION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGM 200</td>
<td>Introduction to Mechanical Technology</td>
<td>3</td>
</tr>
<tr>
<td>AGM 210</td>
<td>Agricultural Welding</td>
<td>3</td>
</tr>
<tr>
<td>AGM 215</td>
<td>Machinery Management</td>
<td>3</td>
</tr>
<tr>
<td>AGM 240</td>
<td>Truck and Tractor Power Trains</td>
<td>3</td>
</tr>
<tr>
<td>AGM 262</td>
<td>Hydraulics/Pneumatics</td>
<td>3 OR</td>
</tr>
<tr>
<td>AGM 280</td>
<td>Mobile Machinery Hydraulic Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

IV. AGRICULTURE ELECTIVE COURSES – COMPLETE 4-5 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AGM 211</td>
<td>Advanced Agricultural Welding</td>
<td>3</td>
</tr>
<tr>
<td>AGM 214</td>
<td>Equipment Service and Safety</td>
<td>2</td>
</tr>
<tr>
<td>AGM 225</td>
<td>Principles of Electrical Wiring</td>
<td>3</td>
</tr>
<tr>
<td>AGM 230</td>
<td>Field Surveying</td>
<td>2</td>
</tr>
<tr>
<td>AGM 241</td>
<td>Diesel Engine Principles</td>
<td>3</td>
</tr>
<tr>
<td>AGM 252</td>
<td>Farm Construction Advanced Lab</td>
<td>2</td>
</tr>
<tr>
<td>AGM 289</td>
<td>Principles of Power Mechanics/Small Engines</td>
<td>3</td>
</tr>
</tbody>
</table>

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
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 340A-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 250 [NP] Plant Nutrition and Fertilizer ......................................................... 3
EHS 212 [2,3,4] Floriculture Crop Production .................................................... 3 OR
NR 222 [3,4] Native Tree & Shrub Identification ................................................ 3
AG 280 [NP] Agricultural Computations ................................................................ 3
AG 285 [NP] Agricultural Communications ..................................................... 3
EHS 201 [1,2] Plant Identification and Useage 1 .................................................. 3
EHS 202 [1,2] Plant Identification and Useage 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

III. AGRICULTURE MAJOR COURSES - COMPLETE 12 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 Useage 1 .................................................. 3
EHS 202 [1,2] Plant Identification and Useage 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, Agricultural Economics, or Agricultural Economics ............ 3
EHS 276 [2,3,4] Forage Crop Production ............................................................. 3 OR
EHS 278 [1,2] Landscape Maintenance ............................................................... 3 OR
EHS 278 [2,3] Landscape Construction and Installation ........................................ 3
PLSC 250 [3,4] Landscape Construction and Installation ................................. 3
PLSC 255 [3,4] Plant Nutrition and Fertilizer ..................................................... 3
PLSC 255 [3,4] Plant Pest Control .................................................................... 3

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

**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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 115</td>
<td>Introduction to Agricultural Education and Careers</td>
<td>1</td>
</tr>
<tr>
<td>AG 349A-D</td>
<td>Work Experience (total of 4 units)**</td>
<td>4 OR</td>
</tr>
<tr>
<td>AG 249</td>
<td>Agriculture Internship**</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EHS 276</td>
<td>Landscape Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>AGM 215</td>
<td>Machinery Management</td>
<td>2</td>
</tr>
<tr>
<td>AG 249</td>
<td>Agriculture Internship**</td>
<td>4</td>
</tr>
<tr>
<td>NR 379</td>
<td>Wildland Fire Control</td>
<td>1</td>
</tr>
<tr>
<td>AGM 230</td>
<td>Field Surveying</td>
<td>3</td>
</tr>
<tr>
<td>AG 285</td>
<td>Agricultural Communications</td>
<td>3</td>
</tr>
<tr>
<td>AGM 215</td>
<td>Machinery Management</td>
<td>2</td>
</tr>
<tr>
<td>HE 105</td>
<td>Standard First Aid/CPR</td>
<td>1</td>
</tr>
</tbody>
</table>

### MINIMUM UNITS FOR CERTIFICATE OF ACHIEVEMENT

**Required

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 115</td>
<td>Introduction to Agricultural Education and Careers</td>
<td>1</td>
</tr>
<tr>
<td>AG 349A-D</td>
<td>Work Experience (total of 4 units)**</td>
<td>4 OR</td>
</tr>
<tr>
<td>AG 249</td>
<td>Agriculture Internship**</td>
<td>4</td>
</tr>
<tr>
<td>NR 220</td>
<td>Introduction to Forestry</td>
<td>3</td>
</tr>
<tr>
<td>NR 222</td>
<td>Native Tree &amp; Shrub Identification</td>
<td>3</td>
</tr>
<tr>
<td>NR 215</td>
<td>Wildlife Production</td>
<td>3</td>
</tr>
<tr>
<td>NR 220</td>
<td>Introductory Forestry</td>
<td>3</td>
</tr>
<tr>
<td>NR 379</td>
<td>Wildland Fire Control</td>
<td>1</td>
</tr>
<tr>
<td>AG 249</td>
<td>Agriculture Internship**</td>
<td>4</td>
</tr>
<tr>
<td>NR 230</td>
<td>Outdoor/Forest Recreation</td>
<td>3</td>
</tr>
<tr>
<td>NR 222</td>
<td>Native Tree &amp; Shrub Identification</td>
<td>3</td>
</tr>
<tr>
<td>NR 215</td>
<td>Wildlife Production</td>
<td>3</td>
</tr>
<tr>
<td>NR 220</td>
<td>Introductory Forestry</td>
<td>3</td>
</tr>
<tr>
<td>EHS 276</td>
<td>Landscape Maintenance</td>
<td>3</td>
</tr>
</tbody>
</table>

** 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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**I. AGRICULTURE CAREER CORE - COMPLETE 5 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 115</td>
<td>1</td>
<td>Introduction to Agricultural Education and Careers</td>
<td></td>
</tr>
<tr>
<td>AG 347A-D</td>
<td>NP</td>
<td>Agriculture Work Experience (total of 4 units) **</td>
<td>4 OR</td>
</tr>
<tr>
<td>AG 249</td>
<td></td>
<td>Agriculture Internship**</td>
<td></td>
</tr>
</tbody>
</table>

**II. AGRICULTURE SCIENCE BREADTH CORE - COMPLETE 9 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLSC 200</td>
<td>1,2</td>
<td>Introduction to Plant Science</td>
<td></td>
</tr>
<tr>
<td>ANSC 200</td>
<td>1,2</td>
<td>Introduction to Animal Science</td>
<td></td>
</tr>
<tr>
<td>AGM 200</td>
<td></td>
<td>Introduction to Mechanical Technology</td>
<td></td>
</tr>
<tr>
<td>AGE 200</td>
<td>3,4</td>
<td>Agriculture Accounting and Analysis</td>
<td></td>
</tr>
<tr>
<td>AGE 210</td>
<td>3,4</td>
<td>Elements of Agriculture Economics</td>
<td></td>
</tr>
<tr>
<td>AGE 225</td>
<td>3,4</td>
<td>Agriculture Computer Applications</td>
<td></td>
</tr>
</tbody>
</table>

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

Complete 4 units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 200</td>
<td>1,2</td>
<td>Soils</td>
<td></td>
</tr>
</tbody>
</table>

Complete 5 units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGM 235</td>
<td>3,4</td>
<td>Irrigation &amp; Drainage</td>
<td></td>
</tr>
<tr>
<td>PLSC 250</td>
<td>3,4</td>
<td>Plant Nutrition &amp; Fertilizers</td>
<td></td>
</tr>
<tr>
<td>PLSC 230</td>
<td>1,2</td>
<td>Fruit Science</td>
<td></td>
</tr>
<tr>
<td>PLSC 205</td>
<td>1,2</td>
<td>Field Crops</td>
<td></td>
</tr>
<tr>
<td>NR 220</td>
<td>3,4</td>
<td>Introductory Forestry</td>
<td></td>
</tr>
<tr>
<td>PLSC 241</td>
<td>3,4</td>
<td>Viticulture</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 222</td>
<td>1,2</td>
<td>Native Tree &amp; Shrub Identification</td>
<td></td>
</tr>
<tr>
<td>NR 224</td>
<td>3,4</td>
<td>Introduction to Forestry Measurement</td>
<td></td>
</tr>
<tr>
<td>EHS 210</td>
<td>1,2</td>
<td>Introduction to Environmental Horticulture</td>
<td></td>
</tr>
<tr>
<td>PLSC 255</td>
<td>3,4</td>
<td>Plant Pest Control</td>
<td></td>
</tr>
<tr>
<td>AGM 230</td>
<td>1,2</td>
<td>Field Surveying</td>
<td></td>
</tr>
<tr>
<td>PLSC 260</td>
<td>3,4</td>
<td>Plant Disease Control</td>
<td></td>
</tr>
<tr>
<td>AGGE 146</td>
<td>3,4</td>
<td>Agriculture, Environment &amp; Society</td>
<td></td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 250</td>
<td>2</td>
<td>Veterinary Physiology, Anatomy, and Terminology</td>
<td></td>
</tr>
<tr>
<td>ANSC 251</td>
<td>3</td>
<td>Veterinary Pharmacy Procedures</td>
<td></td>
</tr>
<tr>
<td>ANSC 252</td>
<td>4</td>
<td>Veterinary Equipment: Operation</td>
<td></td>
</tr>
<tr>
<td>ANSC 253</td>
<td>NP</td>
<td>Veterinary Laboratory Procedures</td>
<td></td>
</tr>
<tr>
<td>ANSC 254</td>
<td>4</td>
<td>Veterinary Medical Office Procedures</td>
<td></td>
</tr>
<tr>
<td>ANSC 255</td>
<td>3</td>
<td>Preparation for Surgical and Dental Assistance</td>
<td></td>
</tr>
<tr>
<td>ANSC 256</td>
<td>3</td>
<td>Veterinary Assistance and Nursing</td>
<td></td>
</tr>
<tr>
<td>ANSC 257</td>
<td>4</td>
<td>Veterinary Assistance &amp; Nursing: Animal Handling</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 111</td>
<td>NP</td>
<td>General Biology</td>
<td></td>
</tr>
<tr>
<td>ANSC 55</td>
<td>NP</td>
<td>Introduction to Veterinary Technology</td>
<td></td>
</tr>
<tr>
<td>ANSC 200</td>
<td>NP</td>
<td>Intro to Animal Science (Large animal oriented)</td>
<td></td>
</tr>
<tr>
<td>ANSC 215</td>
<td>NP</td>
<td>Animal Health &amp; Sanitation (Large animal oriented)</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT AWARD**

17

• NOTE: To become a registered veterinary technician, students must meet specific requirements established by the AVMA (American Veterinary Medical Association). Please contact the MJC Agriculture Division office for advising.
Maurice McKinnon, Ed.D., Dean
West Campus
Glacier Hall, Room 165
(209) 575-6362

INSTRUCTION IN:
Gerontology (GERON)
Human Services (HUMSR)
Medical Assisting (MDAST)
Nursing (NURSE)
Nursing Skills (NURSK)
Nursing Work Experience (NURWE)
Respiratory Care (RSCR)

AWARDS IN:
Chemical Dependency Counseling AA
Human Services, AA, C
Psychosocial Rehabilitation, SR
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 Asst.
Martha Lee, Administrative Specialist
Elaine Schuber, Administrative Secretary
Lynn Spidel, Administrative Assistant

EDUCATIONAL PROGRAMS IN
ALLIED HEALTH & HUMAN SERVICES
Certificate of Achievement: Chemical Dependency Counseling (02/14/12)
CCC CO APPROVAL NEEDED FOR NEW AWARD IN EXISTING PROGRAM

Students who earn certificate of Achievement in Chemical Dependency will be able to:

1. Perform clinical evaluations with individuals that have substance use disorders, being considered for admission to addiction-related services, or presenting in a crisis situation.
2. Develop collaborative treatment plans, goals, action plans, and expected outcomes.
3. Verbalize referrals, and facilitate the individuals use of support systems, and community resources to meet the needs identified in clinical evaluations and treatment plans.
4. Conduct individual and group counseling sessions that facilitate client’s progress towards mutually determined treatment goals and objectives.
5. Provide client, family, and community education on the risks related to psychoactive substance use, as well as available prevention, treatment, and recovery resources.
6. Demonstrate appropriate documentation skills essential for screening, intake, assessment, treatment planning, clinical reports, progress notes, discharge summaries, and other client related data.
7. Uphold professional standards, ethical responsibilities, conduct, and professional development.

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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 23 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMSR 101</td>
<td>Introduction to Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 111</td>
<td>Counseling in Chemical Dependency</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 116</td>
<td>Drugs and Alcohol in Society</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 117</td>
<td>Intervention, Treatment Strategies in Chemical Dependency</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 118</td>
<td>Pharmacology of Abused Substances</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 120</td>
<td>Professional Development in the Helping Professions</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 144</td>
<td>Community Agency Practice in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 145ABD</td>
<td>Community Agency Practice in Human Services</td>
<td>1,2,4</td>
</tr>
</tbody>
</table>

Non Sub Change to approved prog 10/23/12

MINIMUM UNITS IN A.A. MAJOR.......................................................... 23

Dental Assisting PROGRAM

In response to an unprecedented budget crisis, this program was discontinued in Spring of 2011. For more information, see “Discontinued Educational Programs – Spring 2011” on page 86.

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.

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 appropriate documentation skills, and critical analysis of the social and personal issues that impact the elderly.
2. Develop clinical assessments, progress notes, intakes, treatment plans, discharge summaries, and other client related data for the rapidly-growing aged population.
3. Uphold the professional standards, and ethical obligations of the human service professional.
4. Conduct individual, family, and group counseling sessions.
5. Practice appropriate service coordination of community resources, and identify various forms of social support.
6. Provide client, family, and community education around the myriad issues encountered by the aged population.
7. PROGRAM REQUIREMENTS
To earn a Skills Recognition Award in Gerontology, the student must complete the following coursework. Each course must be completed with a C or better.

REQUIRED COURSES: COMPLETE 9 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition and Reading</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 104</td>
<td>Aging in America</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 110</td>
<td>Intro to Interviewing, Counseling</td>
<td>3</td>
</tr>
</tbody>
</table>

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

ADOPTED BY MJC CC 03/27/12
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 ........................................ 1½
GUIDE 110 [1] Educational Planning ................................................................. 1½
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 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 130 [2] Personal Adjustment ................................................................. 3 OR
PSYCH 141 [2] Human Life Span ...................................................................... 3

ELECTIVE COURSES - COMPLETE 3 UNITS

HUMSR 103 [NP] Introduction to Human Service Careers .................................. 1½
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
PSYCH 51 [1] Psychology in Everyday Life ........................................................ 3 OR
PSYCH 101 [1] General Psychology ................................................................. 3
SOCIO 101 [1] Introduction to Sociology ............................................................ 3
SOCIO 125 [3] Sociology of the Family ............................................................... 3

MINIMUM UNITS IN A.A. MAJOR ...................................................................... 20

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.

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 17 UNITS

HUMSR 101 [1] Introduction to Human Services ................................................. 3

Medical Assisting Program

The Modesto Junior College Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahp.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 $3,000 includes a $486 enrollment fee, as well as materials, health clearance, uniform, books and certification exam expenses. 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/allied health and search Medical Assisting Programs. For academic advising, contact Shirley Zubuzek, 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 the MJC Records Office
  All transcripts (high school or equivalent and other colleges) must be on file in the MJC Records Office, prior to the Program application deadline. The Records Office 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 an accredited United States college.

PROGRAM PREREQUISITES
(None required)

PROGRAM APPLICATION
Applications are available online or from Allied Health:
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

- PREVIOUSLY QUALIFIED APPLICANT
  Effective with the spring 2012 application period, each previously qualified application to the MJC Medical Assisting Program

ADDITIONAL REQUIREMENTS
For Accepted Applicants Only
Accepted applicants will receive a letter with instructions for completing the health clearance, criminal 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.

CRIMINAL BACKGROUND CHECK
Practicum sites will require students to provide a criminal 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:

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

REQUIRED COURSES (NON MEDICAL ASSISTING)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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</tbody>
</table>

**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 (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.

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 start-up costs for the first semester of the ADN program is approximately $3,000 and a combined total of $3,000 for the second, third, and fourth semesters. These costs include enrollment and materials fees, criminal 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 to 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 the MJC Records Office: All transcripts (high school or equivalent and other colleges) must be on file in the Allied Health office prior to the program application deadline, unless they are already in the MJC Records Office. We will accept hand-carried transcripts that are in a sealed envelope with a school seal.

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

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.

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, PHYSIO 101, and MICRO 101). 

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 125</td>
<td>Human Anatomy</td>
<td>5</td>
</tr>
<tr>
<td>MICRO 101</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>PHYSIO 101</td>
<td>Introductory Human Physiology</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>Composition and Reading</td>
<td>3</td>
</tr>
</tbody>
</table>

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 from the Allied Health office and website 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 may 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.

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: (ANAT 125, PHYSO 101, MICRO 101) 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 Reiterations: The overall composite score is lowered for each unsuccessful attempt of the core biology coursework (NC, 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. NC, 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 lottery pool 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 office and website during the May application period only.

ADDITIONAL REQUIREMENTS FOR CONDITIONALLY ACCEPTED APPLICANTS ONLY
Conditionally accepted applicants will receive information regarding health clearance and the criminal background check, BLS certification, drug screen and the Test of Essential Academic Skills (TEAS).

HEALTH CLEARANCE
A medical history and physical examination completed by a physician, physiician'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.

CRIMINAL BACKGROUND CHECK
All students participating in clinical assignments are required by acute care hospitals to complete a criminal background check and be cleared by the clinical facility in order to participate in the clinical experience.

BLS CERTIFICATION
The ADN program will offer a Health Care Provider BLS class for all accepted applicants.

DRUG SCREENING
All students participating in clinical assignments will be required to pass a drug screen.

NURSING ASSESSMENT/READINESS TEST
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 access the current regulations. Google “Board of Registered Nursing/Licensure/ License Discipline and Convictions.”

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.

Associate Degree Nursing Program Curriculum (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 Register 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 thorough 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.
MAJOR REQUIREMENTS
To earn an Associate in Science Degree in Nursing/RN, the student must complete the requirements detailed in the Career Technical Education Pathway* or the University Preparation Pathway* in addition to the Nursing/RN 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]

**ANTHROPOLOGY & SOCIOLOGY - Complete one course**
- ANTH 101 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)**

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<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>1st Semester</td>
<td>NURSE 260</td>
<td>Nursing Process: Pharmacology</td>
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<tr>
<td></td>
<td>NURSE 261</td>
<td>Nursing Process: Fundamentals</td>
<td>8</td>
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<tr>
<td>2nd Semester</td>
<td>NURSE 262</td>
<td>Nursing Process: Skills</td>
<td>1½</td>
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<td>NURSE 263</td>
<td>Nursing Process: Maternity</td>
<td>4</td>
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<tr>
<td></td>
<td>NURSE 264</td>
<td>Nursing Process: Pediatrics</td>
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<tr>
<td>3rd Semester</td>
<td>NURSE 265</td>
<td>Nursing Process: Medical-Surgical</td>
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<tr>
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<td>NURSE 266</td>
<td>Nursing Process: Mental Health</td>
<td>4</td>
</tr>
<tr>
<td>4th Semester</td>
<td>NURSE 267</td>
<td>Nursing Process: Adv. Medical - Surgical</td>
<td>11</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES (NURSING:WORK EXPERIENCE)**
One of the following courses may be completed concurrently with students enrolled in the second, third and/or fourth semesters of the ADN Program. Four completions allowed. Employment as a Nurse Extern at a contracted facility is required.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>NURSE 261</td>
<td>Work Experience - Nursing</td>
<td>1</td>
</tr>
<tr>
<td>NURSE 262</td>
<td>Work Experience - Nursing</td>
<td>2</td>
</tr>
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</table>

**UNITS REQUIRED IN NURSING COURSES**

<table>
<thead>
<tr>
<th>Units Required in Nursing Courses</th>
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</thead>
</table>

**UNITS REQUIRED IN NON-NURSING COURSES**

<table>
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<tr>
<th>Units Required in Non-Nursing Courses</th>
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**TOTAL UNITS IN NURSING MAJOR**

<table>
<thead>
<tr>
<th>Total Units for Nursing Degree</th>
<th>61-85</th>
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</table>

**TOTAL UNITS FOR NURSING DEGREE**

**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)
- Official Transcripts on File in the MJC Records Office

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-LVN), 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 are 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 start-up cost for the first semester is approximately $3,000 and $1,600 for the second semester. These costs include enrollment and materials fees, criminal 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.

**REQUIRED MATH COMPETENCY FOR**

- Admission To Modesto Junior College
- High School Graduation Or Equivalent (GED or College Degree)
- Official Transcripts on File in the MJC Records Office

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-LVN), 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 are 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 start-up cost for the first semester is approximately $3,000 and $1,600 for the second semester. These costs include enrollment and materials fees, criminal 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.
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
- **SDBC 150** Ethnicity and Culture in America ............................. 3 OR
- **SOCI 154** African-American Cultures and Communities .............. 3
- **SOCI 156** Mexican Culture in the United States .......................... 3
- **SPCOM 100** Fundamentals of Public Speaking .......................... 3 OR
- **SPCOM 102** Introduction to Human Communication .................. 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 from the Allied Health office and website 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 may 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**: (ANAT 125, PHYSO 101, Micro 101)
- **Core Biology Repetitions**: The overall composite score is lowered for each unsuccessful attempt of the core biology coursework (NC, W, D and F). Courses initially completed with C grades will not be counted as repetitions.

**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 lottery pool 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 from the Allied Health office and website during the May application period only.

**ADDITIONAL REQUIREMENTS FOR CONDITIONALLY ACCEPTED APPLICANTS ONLY**

Conditionally accepted applicants will receive information regarding health clearance and the criminal background check, BLS certification, drug screen and the Test of Essential Academic Skills (TEAS).

**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.

**CRIMINAL BACKGROUND CHECK**

All students participating in clinical assignments are required by acute care hospitals to complete a criminal background check and be cleared by the clinical facility in order to participate in the clinical experience.

**BLS CERTIFICATION**

The ADN Program will offer a health Care Provider BLS class for all accepted applicants.

**DRUG SCREENING**

All students participating in clinical assignments will be required to pass a drug screen.

**NURSING ASSESSMENT/READINESS TEST**

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 pathway 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 access the current regulations. Google "Board of Registered Nursing/Licensees/
License Discipline and Convictions*.

**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 ADN 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 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.

- 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)**

<table>
<thead>
<tr>
<th>First Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURSE 265</td>
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<tr>
<td>NURSE 266</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>NURSE 267</td>
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</tbody>
</table>

**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 PATHWAY** 54½
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 aide 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]

PROGRAM APPLICATION

[NONE]

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.

FINGERPRINTING AND CRIMINAL BACKGROUND CHECK

• All students participating in clinical assignments are required to complete a criminal 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
ARCS MS 3201
PO Box 997416
Sacramento, CA 95899-7416
(916) 327-2445
www.dhs.ca.gov/lnc
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 Degree. All coursework will be applicable as electives and/or Degree. **All coursework will be applicable as electives and/or Degree.**

**Skills Recognition Award:**

**Psychosocial Rehabilitation**

Students who earn a Skills Recognition Award in Psychosocial Rehabilitation will be able to:

1. Demonstrate an understanding of psychosocial rehabilitation, family systems, and historical perspectives as it relates to the public mental health movement.
2. Exhibit effective, communication, body language, and written abilities with consumers or families.
3. Demonstrate an understanding of theoretical philosophies, biology, co-occurring disorders, environmental or psychosocial stressors, and the relation to psychosocial rehabilitation practice.
4. Comprehend the impact of stigma, culture, and various practice models in psychosocial rehabilitation.
5. Conduct a basic assessment, interview, intervention, referral, individual counseling, and group session with individuals that are mentally ill.

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

**REQUIRED COURSES - COMPLETE 9 UNITS.**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMSR 142</td>
<td>Introduction to Psychosocial Rehabilitation</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 143</td>
<td>Applications of Psychosocial Rehabilitation Practice</td>
<td>3</td>
</tr>
<tr>
<td>HUMSR 144</td>
<td>Community Agency Practicum Discussion</td>
<td>1</td>
</tr>
<tr>
<td>HUMSR 145A,B,D</td>
<td>Community Agency Practicum</td>
<td>1 OR 2</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR SKILLS RECOGNITION** ..................................................... 9

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**EQUIPMENT & SUPPLIES**

- Uniforms
- Books
- Licensure examination

- 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.

- 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 the MJC Records Office
- Applicants must have completed the requirements above may complete and submit a Respiratory Care Program Application to Allied Health during the application period.

**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 higher

**PROGRAM PREREQUISITES**

| CHEM 143 | Introductory College Chemistry ......................... | 5 AND |
| AP 150 | Integrative Anatomy & Physiology (C or better) ................ | 4 OR |
| (ANAT 125 & PHYSIO 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 complete and submit a Respiratory Care Program Application to Allied Health during the application period:

- August 1 through October 15

**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:
EDUCATIONAL PROGRAMS IN ALLIED HEALTH & HUMAN SERVICES

- 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 applicants will receive a letter with a Health Clearance form and information regarding the health clearance, criminal 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.

CRIMINAL BACKGROUND CHECK
- All students participating in clinical assignments are required by acute care hospitals to complete a criminal 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
- 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, 1339:374) 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 Program Curriculum

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 Examination for Certification as a Respiratory Care Practitioner as well as the Advanced Practitioner Exam.

REQUIRED COURSES (NON-RESPIRATORY CARE)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 101</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>MICRO 101</td>
<td>Microbiology (Prerequisite to RSCR 242)</td>
<td>4</td>
</tr>
</tbody>
</table>

REQUIRED COURSES (RESPIRATORY CARE)

<table>
<thead>
<tr>
<th>Session</th>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>SPRING</td>
<td>RSCR 220</td>
<td>Introduction to Respiratory Care Principles</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>RSCR 230</td>
<td>Clinical 1</td>
<td>1</td>
</tr>
<tr>
<td>FALL</td>
<td>RSCR 222</td>
<td>Basic Cardiopulmonary Anatomy &amp; Physiology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>RSCR 224</td>
<td>Respiratory Care Theory 2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>RSCR 232</td>
<td>Clinical 2</td>
<td>3½</td>
</tr>
<tr>
<td>SPRING</td>
<td>RSCR 240</td>
<td>Advanced Cardiopulmonary Physiology</td>
<td>4½</td>
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<tr>
<td></td>
<td>RSCR 242</td>
<td>Critical Care Procedures</td>
<td>4½</td>
</tr>
<tr>
<td></td>
<td>RSCR 250</td>
<td>Clinical 3</td>
<td>3½</td>
</tr>
<tr>
<td>SUMMER</td>
<td>RSCR 244</td>
<td>Neonatal-Pediatric Respiratory Care</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>RSCR 251</td>
<td>Neonatal and Pediatric Clinical Practice</td>
<td>½</td>
</tr>
</tbody>
</table>
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. DEGREE** ............................................. **51**

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*The Health Education requirement has been waived for all Allied Health certificates and degrees.*
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, UPA
- Communication Studies AA-T
- Humanities, UPA
- 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

EDUCATIONAL PROGRAMS IN
ARTS,
HUMANITIES, &
COMMUNICATIONS
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 ideas in a variety of media through observation.
3. Plan, design, and produce original works of art.
4. Make informed assessments of quality and effectiveness in works of art, including their own.
5. Identify and distinguish various historical periods of art.

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 69) or the University Preparation Pathway (p. 65) 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

<table>
<thead>
<tr>
<th>ART</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 120 [1] Basic Drawing 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 124 [2] Color and Design 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 164 [NP] History of Art 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 165 [NP] History of Art 2</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>ART</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 121 [2] Basic Drawing 2</td>
<td>3</td>
</tr>
<tr>
<td>ART 123 [2] Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 125 [3] Color and Design 2</td>
<td>3</td>
</tr>
<tr>
<td>ART 108 [1] Ceramics 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 140 [1] Sculpture 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 147 [3] Painting 1 (In Acrylic)</td>
<td>3</td>
</tr>
<tr>
<td>ART 148 [2] Painting 1 (In Oil)</td>
<td>3</td>
</tr>
<tr>
<td>ART 150 [1] Gallery Operation and Management</td>
<td>3</td>
</tr>
<tr>
<td>ART 162 [NP] History of Renaissance Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 163 [NP] History of Modern Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 164 [NP] History of Art 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 165 [NP] History of Art 2</td>
<td>3</td>
</tr>
<tr>
<td>ART 168 [1] Survey of Photography</td>
<td>1</td>
</tr>
<tr>
<td>ART 169 [NP] History of Non-Western Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 102 [1] Introduction to Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ART 170 [1] Basic Photography</td>
<td>1</td>
</tr>
<tr>
<td>ART 173 [NP] Digital Imaging for Photographers</td>
<td>3</td>
</tr>
<tr>
<td>ART 181 [1] Basic Photography (1)</td>
<td>1½</td>
</tr>
<tr>
<td>ART 182 [2] Basic Photography (2)</td>
<td>1½</td>
</tr>
</tbody>
</table>

MINIMUM UNITS IN A.A. MAJOR: 20

A.A.-T. Degree: Studio Arts (pending CCCC0)

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 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.

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.

1. A minimum of 12 semester units or 18 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.

AA-T Degree: Studio Arts (for Transfer)

REQUIRED CORE: (12 UNITS)

<table>
<thead>
<tr>
<th>ART</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 165 [NP] History of Art 2</td>
<td>3</td>
</tr>
<tr>
<td>ART 124 [NP] Color and Design 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 125 [NP] Color and 3-D Foundation Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 120 [NP] Basic Drawing 1</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST A: (3 UNITS)

<table>
<thead>
<tr>
<th>ART</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 164 [NP] History of Art 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 169 [NP] Survey of Asian Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 163 [NP] History of Modern Art</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST B: (9 UNITS)

<table>
<thead>
<tr>
<th>ART</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 123 [NP] Figure Drawing</td>
<td>3 OR</td>
</tr>
<tr>
<td>ART 121 [NP] Basic Drawing 2</td>
<td>3</td>
</tr>
<tr>
<td>ART 147 [NP] Painting 1 (In Acrylic)</td>
<td>3 OR</td>
</tr>
<tr>
<td>ART 148 [NP] Painting 1 (In Oil)</td>
<td>3</td>
</tr>
<tr>
<td>ART 108 [NP] Ceramics 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 140 [NP] Sculpture 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 170 [NP] Basic Photography</td>
<td>3</td>
</tr>
</tbody>
</table>

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
The study of art and design includes drawing, painting, printmaking, sculpture/installation (wood, metal, ceramics, mixed media), photography, digital art, and art history.

**EMPHASIS REQUIREMENTS**

To earn an Associate Degree with this emphasis, the student must complete the requirements detailed in the University Preparation Pathway (p. 65) with 60 units. See advisor for selection of courses.

**REQUIRED COURSES—TAKE 12 UNITS.**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 108</td>
<td>Ceramics 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 121</td>
<td>Basic Drawing 2</td>
<td>3</td>
</tr>
<tr>
<td>ART 122</td>
<td>Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 125</td>
<td>Color and Design 2</td>
<td>3</td>
</tr>
<tr>
<td>ART 147</td>
<td>Painting 1 (in Acrylic)</td>
<td>3</td>
</tr>
<tr>
<td>ART 148</td>
<td>Painting 1 (in Oil)</td>
<td>3</td>
</tr>
<tr>
<td>ART 164</td>
<td>History of Art 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 165</td>
<td>History of Art 2</td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES—TAKE 2 COURSES.**

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

- The student cannot count Art 164 or 165 for both required and elective units but may count one class as required and the other as elective.

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

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**Art History PROGRAM (pending CCCCO AA-T)**

**ABOUT THIS EMPHASIS**

The study of art history will provide students with the knowledge and skills needed to critically analyze great works of human expression and imagination will allow students to identify the role of the visual arts in traditional and contemporary culture, and further prepare them for the meaningful interpretation of artworks.

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

**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 and develop an understanding of the development of art movements and the vocabulary terms employed in the discussion of these movements.
3. Evaluate the basic qualities of an artwork, i.e., style, composition, color, technique, and medium.
4. Evaluate original works of art by visiting significant art museums in the San Francisco Bay Area or elsewhere.
5. Reproduce, render, and interpret ideas in a variety of media through participation in studio art 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)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 164</td>
<td>History of Art 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 165</td>
<td>History of Art 2</td>
<td>3</td>
</tr>
<tr>
<td>ART 120</td>
<td>Basic Drawing 1</td>
<td>3</td>
</tr>
</tbody>
</table>

**LIST A: (3 UNITS)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 169</td>
<td>Survey of Asian Art</td>
<td>3</td>
</tr>
</tbody>
</table>

**LIST B: (SELECT ONE: 3 UNITS)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 124</td>
<td>Color and Design 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 125</td>
<td>Color and 3-D Foundation Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 126</td>
<td>Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 108</td>
<td>Ceramics 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 170</td>
<td>Basic Photography 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 140</td>
<td>Sculpture 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 121</td>
<td>Basic Drawing 2</td>
<td>3</td>
</tr>
<tr>
<td>ART 147</td>
<td>Painting 1 (in Acrylic)</td>
<td>3</td>
</tr>
<tr>
<td>ART 148</td>
<td>Painting 1 (in Oil)</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 162</td>
<td>History of Renaissance Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 163</td>
<td>History of Modern Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 168</td>
<td>Survey of Photography</td>
<td>3</td>
</tr>
<tr>
<td>FREN 101</td>
<td>French 1</td>
<td>5</td>
</tr>
<tr>
<td>GERM 101</td>
<td>German 1</td>
<td>5</td>
</tr>
<tr>
<td>ITAL 101</td>
<td>Italian 1</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 101</td>
<td>Spanish 1</td>
<td>5</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED IN AS-T MAJOR .................................................................... 18-20**
To earn an Associate in Arts for Transfer Degree in this major, the student must complete the university admission and transfer requirements. In all cases, students should consult with a counselor for more information on part of the CSU system for students intending to transfer to a particular CSU campus or to a university or college that is not.

Students transferring to a CSU campus that does accept this degree will be required to complete no additional courses beyond the requirements detailed in the Transfer Model Curriculum pathway. All courses must be completed with a C or better.

**EXPECTED STUDENT LEARNING OUTCOMES**

Students who earn an Associate of 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

---

**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**

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

**UNITS REQUIRED FOR IGETC/CSU 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.

*MOC Guidance and Activities requirements are not required for this degree.

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**COMMUNICATION STUDIES FOR TRANSFER PROGRAM**

In response to an unprecedented budget crisis, this program was discontinued in Spring of 2011. For more information, see "Discontinued Educational Programs - Spring 2011" on page 86.

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**REQUIRED COURSES (3 UNITS)**

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

An additional 2 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCOM 104</td>
<td>Argumentation</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 107</td>
<td>Introduction to Debate</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 103</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 106</td>
<td>Group and Organizational Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

---

**B. COMPLETE 6 UNITS:**

Any course not used in LIST A

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCOM 104</td>
<td>Argumentation</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 107</td>
<td>Introduction to Debate</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 103</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 106</td>
<td>Group and Organizational Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

---

**C. COMPLETE 3 UNITS:**

Any course not used in LIST A or LIST B

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCOM 108</td>
<td>Persuasion</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 109</td>
<td>Women in Management</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 112</td>
<td>Readers’ Theatre</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 113</td>
<td>Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 114</td>
<td>Advanced Readers’ Theatre</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS IN AA-T MAJOR** ................................................................. 18
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. 65) 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
1. Upon satisfactory completion of this program, the student will be able to:
   a. Analyze the ways that individuals and various cultural groups act in response to their societies and environment.
   b. Demonstrate awareness of the various ways that culture, ethics, history, belief, and ethnicity affect individual experience and society as a whole.
   c. Demonstrate the ability to interpret and analyze works of art for meaning and to forge aesthetic judgments.
   d. Describe how cultural beliefs, values, and practices have influenced societies in various times.
   e. 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMAN 105</td>
<td>Early Humanistic Traditions</td>
<td>3</td>
</tr>
<tr>
<td>HUMAN 106</td>
<td>Humanities in the Modern World</td>
<td>3</td>
</tr>
<tr>
<td>HUMAN 101</td>
<td>Introduction to the Humanities</td>
<td>3</td>
</tr>
<tr>
<td>HUMAN 110</td>
<td>East Meets West</td>
<td>3</td>
</tr>
<tr>
<td>HUMAN 130</td>
<td>Introduction to Western Religions</td>
<td>3</td>
</tr>
<tr>
<td>HUMAN 140</td>
<td>Introduction to World Mythology</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES - COMPLETE 9 UNITS

ELECTIVE COURSES GROUP 1 - TAKE ONE COURSE FROM THE FOLLOWING

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 116</td>
<td>Introduction to Drama</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 131</td>
<td>Introduction to World Literature to 1500</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 132</td>
<td>Introduction to World Literature (1500 to Present)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 135</td>
<td>Survey of American Literature to 1850</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 136</td>
<td>Survey of American Literature: 1850 to the Present</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 137</td>
<td>Survey of English Literature to the 18th Century</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 138</td>
<td>Survey of English Literature: 1700 - Present</td>
<td>3</td>
</tr>
<tr>
<td>FREN 101</td>
<td>French I</td>
<td>5</td>
</tr>
<tr>
<td>GERM 101</td>
<td>German 1</td>
<td>5</td>
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<tr>
<td>ITAL 101</td>
<td>Italian 1</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 101</td>
<td>Spanish 1</td>
<td>5</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES GROUP 2 - TAKE ONE COURSE FROM THE FOLLOWING

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 164</td>
<td>History of Art 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 165</td>
<td>History of Art 2</td>
<td>3</td>
</tr>
<tr>
<td>ART 169</td>
<td>Survey of Asian Art</td>
<td>3</td>
</tr>
<tr>
<td>HIST 104</td>
<td>Western Civilization to 1650</td>
<td>3</td>
</tr>
<tr>
<td>HIST 105</td>
<td>Western Civilization since 1650</td>
<td>3</td>
</tr>
<tr>
<td>MUSG 102</td>
<td>Introduction to World Music</td>
<td>3</td>
</tr>
<tr>
<td>MUSG 121</td>
<td>History of Western Music 1</td>
<td>3</td>
</tr>
<tr>
<td>MUSG 122</td>
<td>History of Western Music 2</td>
<td>3</td>
</tr>
<tr>
<td>THETR 123</td>
<td>Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>THETR 194</td>
<td>Introduction to World Dance</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS ................................................................. 18 - 20

Journalism PROGRAM

In response to an unprecedented budget crisis, this program was discontinued in Spring of 2011. For more information, see “Discontinued Educational Programs – Spring 2011” on page 86.

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.

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
To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below. Students who plan to transfer to a four-year school are strongly advised to meet with a member of the music faculty.

**PROGRAM PrEREQUISITES**

**MUST 101** [P] Music Fundamentals 1 ................................................................. 3 OR
**MUST 120** [P] Music Theory Review .................................................................. 4 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.

**RECOMMENDED PrEREQUISITES**

**MUST 111** [P] Rhythmic Skills ..............................................................................

**REQUIRED COURSES IN MUSIC THEORY - COMPLETE 20 UNITS**

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

**ENSEMBLE-COMPLETE 4 UNITS**

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

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

**APPLIED MUSIC - COMPLETE 4 UNITS**

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

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

*Musicians 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
**MUST 130** [1234] Practica Musica (4 times at 1 unit) ............................................ 4

**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 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 BLAH BLAH BLA**

5. Demonstrate musical literacy by decoding music notation through their instrument and/or voice.
6. Demonstrate the ability to use basic musical notation.
7. Perform and stylistically interpret music on their applied instrument or voice, in an ensemble and/or in a solo setting.
8. 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 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.

**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
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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below. Courses should be selected with the assistance of a Photography faculty advisor. Students who plan to transfer to a four-year college or university should consult with a Photography faculty advisor to ensure that all required transfer courses are completed.

REQUIRED COURSES - COMPLETE 18 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 124</td>
<td>Color and Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 168</td>
<td>Survey of Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 170</td>
<td>Basic Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 172</td>
<td>Intermediate Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 173</td>
<td>Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 175</td>
<td>Color Photography</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES - COMPLETE AT LEAST 2 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 160</td>
<td>Appreciation of Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 163</td>
<td>History of Modern Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 164</td>
<td>History of Art 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 165</td>
<td>History of Art 2</td>
<td>3</td>
</tr>
<tr>
<td>ART 1788</td>
<td>Advanced Photography (can be repeated)</td>
<td>2</td>
</tr>
</tbody>
</table>

MINIMUM UNITS IN AA MAJOR

PENDING CCCO APPROVAL 04/10/2012

Photography

Photography is both an artistic and a technical vocation. This program is designed to develop the student’s aesthetic and technical abilities by working with design, composition, lighting, various types of image content, photographic processes, image critique, and presentation techniques.
### 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**

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

**Elective Courses - Complete 6 Units**

- MUSC 122: Electronic Music 2 
- MUST 101: Music Fundamentals 
- MUSA 121: Elementary Piano 
- MUSG 101: Music Appreciation 
- MUSG 112: The History of the Beatles 

**Total Units for Skills Recognition Award:** 17

### Speech Communication

**Program**

**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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>SPCOM 100</td>
<td>Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 102</td>
<td>Introduction to Human Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 110</td>
<td>Persuasion</td>
<td>3</td>
</tr>
</tbody>
</table>

**Critical Thinking Area - Complete 3 Units**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCOM 104</td>
<td>Argumentation</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 107</td>
<td>Introduction to Debate</td>
<td>3</td>
</tr>
</tbody>
</table>

**Group and Organizational Communication Area - Complete 3 Units**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCOM 106</td>
<td>Group &amp; Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 109</td>
<td>Women in Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Professional Skills Area - Complete 3 Units**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCOM 103</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCOM 130</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units for Skills Recognition Award:** 12
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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below. Student should consult with a Speech advisor for selection of elective units.

**REQUIRED COURSES - COMPLETE 6 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>SPCM 102</td>
<td>[T] Introduction to Human Communication</td>
<td>3 OR</td>
</tr>
<tr>
<td>SPCM 100</td>
<td>[T] Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 104</td>
<td>[NP] Argumentation</td>
<td>3</td>
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</tbody>
</table>

**ELECTIVE COURSES - COMPLETE 14 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SPCM 101</td>
<td>[NP] Voice and Articulation</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 103</td>
<td>[NP] Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 105</td>
<td>[NP] Forensics Debate</td>
<td>2</td>
</tr>
<tr>
<td>SPCM 106</td>
<td>[NP] Group &amp; Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 107</td>
<td>[T] Introduction to Debate</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 109</td>
<td>[NP] Women in Management</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 110</td>
<td>[NP] Persuasion</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 115</td>
<td>[NP] Forensics Platform Speeches</td>
<td>2</td>
</tr>
<tr>
<td>SPCM 120</td>
<td>[NP] Oral Reading / Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 122</td>
<td>[T] Introduction to Readers' Theatre</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 123</td>
<td>[NP] Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 125</td>
<td>[NP] Forensics Interpretation Events</td>
<td>2</td>
</tr>
<tr>
<td>SPCM 130</td>
<td>[NP] Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 135</td>
<td>[NP] Forensics Limited Preparation Events</td>
<td>2</td>
</tr>
<tr>
<td>SPCM 145</td>
<td>[NP] Parliamentary Procedure</td>
<td>1</td>
</tr>
<tr>
<td>SPCM 199</td>
<td>[NP] Independent Study</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**MINIMUM UNITS IN A.A. MAJOR** ................................................................. 20

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**Television Production**

**PROGRAM**

In response to an unprecedented budget crisis, this program was **discontinued in Spring of 2011.** For more information, see “Discontinued Educational Programs – Spring 2011” on page 86.

**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 design.
3. Demonstrate the ability to draw a basic makeup design for a face.
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 15 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>THEIR 100</td>
<td>[NP] Introduction to Theatre Arts</td>
<td>3</td>
</tr>
<tr>
<td>THEIR 175</td>
<td>[1] Stage Costuming</td>
<td>3</td>
</tr>
<tr>
<td>THEIR 178</td>
<td>[2] Introduction to Scenery Design</td>
<td>3</td>
</tr>
<tr>
<td>THEIR 182</td>
<td>[1] Practical Stage Lighting</td>
<td>3</td>
</tr>
<tr>
<td>THEIR 183</td>
<td>[2] Fundamentals of Stage Make-up 1</td>
<td>1</td>
</tr>
<tr>
<td>THEIR 190A</td>
<td>[NP] Theatre Production Workshop</td>
<td>1</td>
</tr>
<tr>
<td>THEIR 196</td>
<td>[NP] Theatre Management</td>
<td>1</td>
</tr>
</tbody>
</table>

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

**Skills Recognition Award:**

**Theatre Performance**

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

**REQUIRED COURSES - COMPLETE 6 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>THEIR 161</td>
<td>[2] Intermediate Acting</td>
<td>3</td>
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**ELECTIVE COURSES - COMPLETE 9 UNITS**

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>THEIR 122</td>
<td>[1] Introduction to Readers’ Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THEIR 123</td>
<td>[NP] Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>THEIR 131</td>
<td>[NP] Fundamentals of Choreography</td>
<td>3</td>
</tr>
<tr>
<td>THEIR 195</td>
<td>[NP] Movement for the Performing Artist</td>
<td>3</td>
</tr>
</tbody>
</table>

**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:

1. Demonstrate knowledge of theatre from a historical perspective.
2. Synthesize and apply information on contemporary trends and technologies in theatre.
3. Analyze a theatrical text.
4. Research and analyze the directing of other directors.
5. Demonstrate knowledge of theatrical protocol.
6. Demonstrate understanding of the collaborative nature of theatre.
7. Demonstrate the process required to prepare a resume, audition piece, or portfolio.
9. Employ initiative and leadership qualities in individual development and growth.
10. 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. 69) or the University Preparation Pathway (p. 65) 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

<table>
<thead>
<tr>
<th>Course</th>
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<th>Notes</th>
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<tbody>
<tr>
<td>THETR 100</td>
<td>3</td>
<td>Introduction to Theatre Arts</td>
<td></td>
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<tr>
<td>THETR 160</td>
<td>3</td>
<td>Fundamentals of Acting</td>
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<tr>
<td>THETR 190B</td>
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<td>Theatre Production Workshop</td>
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ELECTIVE COURSES: GENERAL - COMPLETE 10 UNITS

<table>
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<tr>
<td>THETR 103</td>
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<td>Voice and Articulation</td>
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<td>THETR 105</td>
<td>3</td>
<td>Introduction to Stagecraft</td>
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<tr>
<td>THETR 122</td>
<td>3</td>
<td>Introduction to Readers' Theatre</td>
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</tr>
<tr>
<td>THETR 123</td>
<td>3</td>
<td>Storytelling</td>
<td></td>
</tr>
<tr>
<td>THETR 124</td>
<td>2</td>
<td>Advanced Readers' Theatre</td>
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</tr>
<tr>
<td>THETR 131</td>
<td>2</td>
<td>Fundamentals of Choreography</td>
<td></td>
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<tr>
<td>THETR 150</td>
<td>3</td>
<td>Elements of Playwriting</td>
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<tr>
<td>THETR 156</td>
<td>2</td>
<td>Rehearsal and Performance in Comedy</td>
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<tr>
<td>THETR 157</td>
<td>2</td>
<td>Rehearsal and Performance in Drama</td>
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<tr>
<td>THETR 158</td>
<td>2</td>
<td>Rehearsal and Performance in Classical Theatre</td>
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<tr>
<td>THETR 159</td>
<td>2</td>
<td>Rehearsal and Performance in Musical Theatre</td>
<td></td>
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<tr>
<td>THETR 161</td>
<td>2</td>
<td>Intermediate Acting</td>
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<tr>
<td>THETR 164</td>
<td>3</td>
<td>Improvisational Acting</td>
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<td>THETR 165</td>
<td>3</td>
<td>History of the American Musical Theatre</td>
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<td>THETR 174</td>
<td>3</td>
<td>Stage Makeup</td>
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</tr>
<tr>
<td>THETR 175</td>
<td>3</td>
<td>Stage Costuming</td>
<td></td>
</tr>
<tr>
<td>THETR 178</td>
<td>3</td>
<td>Introduction to Scenery Design</td>
<td></td>
</tr>
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<td>THETR 182</td>
<td>3</td>
<td>Practical Stage Lighting</td>
<td></td>
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<tr>
<td>THETR 184</td>
<td>3</td>
<td>Fundamentals of Stage Makeup, Up 1</td>
<td></td>
</tr>
<tr>
<td>THETR 186</td>
<td>3</td>
<td>Fundamentals of Stage Makeup, Up 2</td>
<td></td>
</tr>
<tr>
<td>THETR 190A</td>
<td>1</td>
<td>Theatre Production Workshop</td>
<td></td>
</tr>
<tr>
<td>THETR 192</td>
<td>2</td>
<td>Rehearsal and Performance</td>
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<td>THETR 194</td>
<td>3</td>
<td>Introduction to World Dance</td>
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<tr>
<td>THETR 196</td>
<td>1</td>
<td>Theatre Management</td>
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<tr>
<td>THETR 198</td>
<td>1-3</td>
<td>Special Topics</td>
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</table>

ELECTIVE COURSES: MOVEMENT - COMPLETE 2 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Title</th>
<th>Notes</th>
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<tr>
<td>THETR 127</td>
<td>1</td>
<td>Ballet 2</td>
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<tr>
<td>THETR 129</td>
<td>1</td>
<td>Jazz 2</td>
<td></td>
</tr>
<tr>
<td>THETR 170A</td>
<td>1</td>
<td>Hip Hop</td>
<td></td>
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<tr>
<td>THETR 185</td>
<td>1</td>
<td>Modern Dance 1</td>
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</tr>
<tr>
<td>THETR 186</td>
<td>1</td>
<td>Modern Dance 2</td>
<td></td>
</tr>
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<td>THETR 187</td>
<td>1</td>
<td>Modern Dance 3</td>
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</tr>
<tr>
<td>THETR 188</td>
<td>1</td>
<td>Jazz Dance</td>
<td></td>
</tr>
<tr>
<td>THETR 189</td>
<td>1</td>
<td>Ballet 1</td>
<td></td>
</tr>
<tr>
<td>THETR 195</td>
<td>3</td>
<td>Movement for the Performing Artist</td>
<td></td>
</tr>
</tbody>
</table>

MINIMUM UNITS IN A.A. MAJOR ........................................................................ 20

AA-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, costume, 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 institutions. Completion of the Associate of Arts in Theatre Arts for Transfer degree also provides guaranteed admission with junior status to the CSU system. Upon completion of the Associate of 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 of 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:

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

THE FOLLOWING IS REQUIRED FOR THE ASSOCIATE OF 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 units of 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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Title</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>THETR 100</td>
<td>3</td>
<td>Introduction to Theatre Arts</td>
<td></td>
</tr>
<tr>
<td>THETR 160</td>
<td>3</td>
<td>Fundamentals of Acting</td>
<td></td>
</tr>
<tr>
<td>THETR 156</td>
<td>2</td>
<td>Rehearsal and Performance in Comedy*</td>
<td></td>
</tr>
<tr>
<td>THETR 157</td>
<td>2</td>
<td>Rehearsal and Performance in Drama*</td>
<td></td>
</tr>
<tr>
<td>THETR 158</td>
<td>2</td>
<td>Rehearsal and Performance in Classical Theatre*</td>
<td></td>
</tr>
<tr>
<td>THETR 159</td>
<td>2</td>
<td>Rehearsal and Performance in Musical Theatre*</td>
<td></td>
</tr>
<tr>
<td>THETR 190AB</td>
<td>1-2</td>
<td>Theatre Production Workshop</td>
<td></td>
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</tbody>
</table>

*Rehearsal and Performance (Maximum 3 units) or Theatre Production Workshop (Maximum 3 units)
### LIST A: (9 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>THETR 105</td>
<td>[NP] Introduction to Stagecraft</td>
<td>3</td>
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<tr>
<td>THETR 161</td>
<td>[NP] Intermediate Acting</td>
<td>3</td>
</tr>
<tr>
<td>THETR 174</td>
<td>[NP] Stage Makeup</td>
<td>3</td>
</tr>
<tr>
<td>THETR 175</td>
<td>[NP] Stage Costuming</td>
<td>3</td>
</tr>
<tr>
<td>THETR 178</td>
<td>[NP] Introduction to Scenery Design</td>
<td>3</td>
</tr>
<tr>
<td>THETR 182</td>
<td>[NP] Practical Stage Lighting</td>
<td>3</td>
</tr>
<tr>
<td>THETR 156</td>
<td>[NP] Rehearsal and Performance in Comedy*</td>
<td>2</td>
</tr>
<tr>
<td>THETR 157</td>
<td>[NP] Rehearsal and Performance in Drama*</td>
<td>2</td>
</tr>
<tr>
<td>THETR 158</td>
<td>[NP] Rehearsal and Performance in Classical Theatre*</td>
<td>2</td>
</tr>
<tr>
<td>THETR 159</td>
<td>[NP] Rehearsal and Performance in Musical Theatre</td>
<td>2 OR</td>
</tr>
<tr>
<td>THETR 190AB</td>
<td>[NP] Theatre Production Workshop*</td>
<td>1-2</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THETR 190AB</td>
<td>[NP] Theatre Production Workshop*</td>
<td>1-2</td>
</tr>
</tbody>
</table>

### 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 of Arts in Theatre Arts for Transfer degree.
John Williams, Dean (Interim)  
East Campus  
Founders Hall 100  
(209) 575-6129

INSTRUCTION IN:  
Anthropology (ANTHR)  
Economics (ECON)  
Geography (GEOG)  
Interdisciplinary Studies (INDIS)  
History (HIST)  
Philosophy (PHILO)  
Political Science (POLSC)  
Psychology (PSYCH)  
Social Science (SOCSC)

AWARDS IN:  
Administration of Justice, AS, AA  
Ethnic Studies, SR  
Geography, UPAA  
Liberal Studies, UPAA  
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  
Don Rousseau, Program Representative I  
Ken Sholar, Inst. Support Assistant

EDUCATIONAL PROGRAMS IN

BEHAVIORAL & SOCIAL SCIENCES
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.

A.A. Degree: Administration of Justice

REPLACE WITH AS-T if/when approved by CCCCO

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate of Arts Degree in Administration of Justice 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 the 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. Exactly 60 semester units are required for the degree.

REQUIRED CORE – COMPLETE 18 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ADJU 201</td>
<td>Introduction to Administration of Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 202</td>
<td>Principles and Procedures of the Justice System</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 203</td>
<td>Concepts of Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 204</td>
<td>Legal Aspects of Evidence</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 205</td>
<td>Community Relations</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 210</td>
<td>Communications in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 211</td>
<td>Criminal Procedure</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 212</td>
<td>Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 213</td>
<td>Juvenile Justice Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 214</td>
<td>Crime Education</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 215</td>
<td>Introduction to Corrections</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 216</td>
<td>Correctional Law</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 217</td>
<td>Substance Abuse</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 218</td>
<td>Drug Courts</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 219</td>
<td>Corrections Firearm Training</td>
<td>3</td>
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<tr>
<td>ADJU 220</td>
<td>Security Procedures</td>
<td>3</td>
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LIST A: TWO COURSES (MINIMUM 6 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>ADJU 222</td>
<td>Profiling Terrorism</td>
<td>3</td>
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<tr>
<td>ADJU 223</td>
<td>Disease and Crime</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 224</td>
<td>Crime Prevention and Detection</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 225</td>
<td>Juvenile Justice</td>
<td>3</td>
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LIST B: TWO COURSES (MINIMUM 6 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>SOCO 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>MATH 134</td>
<td>Mathematical Ideas and Applications</td>
<td>5</td>
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<tr>
<td>PSYCH 101</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 145C</td>
<td>Community Agency Fieldwork</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 205</td>
<td>Community Relations</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 210</td>
<td>Communications in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 213</td>
<td>Patrol Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 217</td>
<td>Substance Abuse</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 222</td>
<td>Profiling Terrorism</td>
<td>3</td>
</tr>
</tbody>
</table>

MINIMUM UNITS IN A.A. MAJOR: 21

AS-T: 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 of Science in Administration of Justice for Transfer degree is designed to prepare candidates for transfer to a California State University offering a major in administration of justice/criminal justice. Course work is offered in evidence, community relations corrections and law. Some potential careers are in the Department of Corrections, 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 a live scan check of their fingerprints.

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student Learning Outcomes, students who complete the Associate of 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 the 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.

REQUAID CORE: (6 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 201</td>
<td>Introduction to Administration of Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 203</td>
<td>Concepts of Criminal Law</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST A: TWO COURSES (6 UNITS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 202</td>
<td>Principles and Procedures of the Justice System</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 204</td>
<td>Legal Aspects of Evidence</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 212</td>
<td>Criminal Investigations</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 235</td>
<td>Introduction to Corrections</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 232</td>
<td>Juvenile Justice Procedures</td>
<td>3</td>
</tr>
</tbody>
</table>
Students who complete the Associate of Science Degree in Administration of Justice will be able to:

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

TOTAL UNITS REQUIRED FOR AS-T MAJOR ............................................ 60

Note: Double counting courses in GE and the major is permissible. Guidance and Activities requirements are not required for this 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 of 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. 69) or the University Preparation Pathway (p. 63) 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] Preparatory to the Justice System ......................... 3
- ADJU 204 [3] Legal Aspects of Evidence ................................. 3
- ADJU 205 [1] Community Relations .......................................... 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 206 [NP] Multi-Disciplinary Issues in Public Safety ...... 3
- ADJU 213 [1] Patrol Procedures ............................................. 3
- ADJU 215 [1] Introduction to Weapons ................................. 116
- ADJU 216 [NP] Firearms & Range Application ..................... 116
- ADJU 217 [2] Substance Abuse ............................................... 3
- ADJU 222 [NP] Profiling Terrorism ........................................ 3
- ADJU 235 [1] Introduction to Corrections .............................. 3
- ADJU 243 [NP] Domestic Violence Crisis Intervention ....... 3
- ADJU 351 [NP] Elements of Supervision in Public Safety ....... 3

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

Ethnic Studies PROGRAM

Skills Recognition Award: Ethnic Studies

- 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
- SPCCOM 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 Literature 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
- MUSC 169 [NP] Introduction to World Music ........................... 3
- THEIR 102 [NP] World Theater ........................................... 3
- THEIR/PE 194 [NP] World Dance ......................................... 3

B. EXAMINING HISTORICAL AND POLITICAL PERSPECTIVES – COMPLETE 3 UNITS

- BUSAD 208 [NP] Introduction to International Business .......... 3
- GEOG 110 [NP] World Regional Geography ......................... 3
- HIST 106 [NP] World Civilization from the 16th Century ....... 3
- HIST 125 [NP] History of Mexico ......................................... 3
- 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
A.S. 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.

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

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.

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:

GU109 [NP] International Student/New American Focus ........................................ 1
GU110 [NP] Educational Planning ...................................................................... 1
GU111 [NP] Career Awareness ........................................................................... 1
GU112 [NP] Job Hunting Skills ........................................................................... 1
GU116 [NP] Orientation for Re-Entry Adults .......................................................... 2

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

EXPECTED STUDENT LEARNING OUTCOMES

In addition to demonstrating the abilities associated with the University Preparation Pathway requirements, students who complete the Associate 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 reflection on their coursework and classroom observations.

Liberal Studies

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.
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
ART 124 [NP] Color and Design 1 .......................................................... 3
ART 140 [NP] Sculpture 1 ..................................................................... 3
CMPGR 202 [NP] Introduction to Computer Graphics ........................ 3
THETR 160 [NP] Fundamentals of Acting .............................................. 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

AREA A.3 – COMPLETE ONE OF THE FOLLOWING COURSES:
CMPS 103 [NP] Symbolic Logic ............................................................ 3
CMPS 105 [NP] Reasoning ................................................................. 3
CMPS 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

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

CSU-GE AREA D.2 – COMPLETE ONE COURSE
HIST 102 [NP] History of the U.S. post Civil War ................................. 3
POSC 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 Development ................................................ 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 – Theory ........................................ 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
CMPS 201 [NP] General Computer Literacy ........................................ 3
CMPS 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

EDUCATIONAL PROGRAMS IN BEHAVIORAL & SOCIAL SCIENCES

ACADEMIC PROGRAMS

137
John Williams, Dean (Interim)
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, AA, C
Accounting Clerk, C
Bookkeeping, AS, AA, C
Business Administration, AS, AA
Business Operations, AS, AA
Clerical, AS, AA, C
Computer Applications Specialist, C
Computer Graphics Applications, AS, C
Computer Information Systems, AA
Computer Programming Specialist, C
Computer Science, AS, AA
International Business, C
Marketing, AS, AA
Network Administration, C
Network Technician, C
Office Administration, AS, AA, C
Office Computer Applications, C
Office Support, C
Professional Selling, C
Records Management/ Data-Entry Specialist, C
Real Estate, AS, AA, C
Retail Management, SR
Supervisory Management, AS, AA, C
Word Processing, C
Administration of Justice, AS, AA
Ethnic Studies, 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, Instructional Support Assistant
Wendy Towers, Program Technician
Don Rousseau, Program Representative I
Ken Sholar, Instructional Support Assistant

EDUCATIONAL PROGRAMS IN
BUSINESS
**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 accounting.

**Certificate of Achievement: Accounting Clerk**

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**

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**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:

4. Demonstrate a firm understanding and working knowledge of basic accounting terminology and the process by which transactions relate to the accounting cycle.
5. Be prepared to obtain employment in an entry-level position in the accounting field.
6. 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**

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<tbody>
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<tr>
<td>BUSAD 336</td>
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**ELECTIVE COURSES - COMPLETE 6 UNITS**

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CMPSC 201</td>
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<td>BUSAD 377</td>
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<tr>
<td>BUSAD 230</td>
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<td>BUSAD 319</td>
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</tr>
<tr>
<td>BUSAD 218</td>
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</tbody>
</table>

Student may complete whichever course was not used in the REQUIRED units.

**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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 20 UNITS

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
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<td>BUSAD 218</td>
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</tr>
<tr>
<td>BUSAD 200</td>
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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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

REQUIRED COURSES COMPLETE 20 UNITS

<table>
<thead>
<tr>
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<td>BUSAD 218</td>
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ELECTIVE COURSES - COMPLETE 10 UNITS

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<tr>
<td>BUSAD 240</td>
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<tr>
<td>BUSAD 100</td>
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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

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<th>Course</th>
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<td>BUSAD 310</td>
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ELECTIVE COURSES - COMPLETE 6 UNITS

<table>
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<th>Course</th>
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<td>BUSAD 377</td>
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</table>

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 transaction 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.

**REQUIRED COURSES - COMPLETE 19 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
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<td>BUSAD 200</td>
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<td>Spreadsheet Skills for Financial Accounting</td>
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<tr>
<td>BUSAD 319</td>
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**ELECTIVE COURSES - COMPLETE 3 UNITS**

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<td>BUSAD 377</td>
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<td>Human Relations in Business</td>
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<tr>
<td>BUSAD 245</td>
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<td>Principles of Marketing</td>
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**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 transaction 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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**REQUIRED COURSES - COMPLETE 19 UNITS**

<table>
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**ELECTIVE COURSES - COMPLETE 3 UNITS**

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<td>BUSAD 377</td>
<td>3</td>
<td>Human Relations in Business</td>
</tr>
<tr>
<td>BUSAD 245</td>
<td>2</td>
<td>Principles of Marketing</td>
</tr>
</tbody>
</table>

**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.A. Degree: Business Administration**

**EXPECTED STUDENT LEARNING OUTCOMES**

Upon the successful completion of the A.A. 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 arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**REQUIRED COURSES - COMPLETE 19 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAD 301</td>
<td>4</td>
<td>Business Law</td>
</tr>
<tr>
<td>BUSAD 238</td>
<td>4</td>
<td>Business Law</td>
</tr>
<tr>
<td>CMPSC 202</td>
<td>3</td>
<td>Information Systems</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES - COMPLETE 8 UNITS**

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

**MINIMUM UNITS IN A.A. MAJOR** ................................................................. 20

**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. 69) or the University Preparation Pathway (p. 65) 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

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 of 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 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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAD 201</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSAD 202</td>
<td>Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSAD 218</td>
<td>Business Law</td>
<td>4</td>
</tr>
<tr>
<td>ECON 101</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 102</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
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</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 138</td>
<td>Calculus for Business &amp; Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>MATH 134</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 130</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST B: (COMPLETE 5-8 UNITS)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 201</td>
<td>Computer Literacy</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 248</td>
<td>Introduction to Business OR</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 210</td>
<td>Business Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED IN AS-T MAJOR

27-29

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


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 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.

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 Business Operations Management at Modesto Junior College, students must complete the requirements detailed in the Career Technical Education Pathway (p. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

Note: Double counting courses in GE and the major is permissible.
Modesto Junior College Guidance and Activities requirements are not required for this degree.
The Clerical A.A. 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**

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, students must complete the following coursework. Each course must be completed with a grade of C or better.

**REQUIRED COURSES - COMPLETE 30 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFADM 232</td>
<td>Advanced Word Processing &amp; Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 303</td>
<td>Keyboarding for Speed &amp; Accuracy (twice at ½ unit)</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 304</td>
<td>Professional English for Business</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 305</td>
<td>Records Management</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 313</td>
<td>Office Skills</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 314</td>
<td>Office Procedures and Technologies</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 330</td>
<td>Understanding the Internet</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 362</td>
<td>Introduction to Business Presentation Software</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 363</td>
<td>Introduction to Spreadsheet Software</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 366</td>
<td>Proofreading Techniques</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 375</td>
<td>10-Key on the Computer</td>
<td>1</td>
</tr>
</tbody>
</table>

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

**A.S. Degree: Clerical**

The A.S. Degree is a two-year Associate of Science degree that provides a foundation for transfer to a four-year institution. 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 an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**REQUIRED COURSES - COMPLETE 20 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFADM 232</td>
<td>Advanced Word Processing &amp; Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 303</td>
<td>Keyboarding for Speed &amp; Accuracy (twice at ½ unit)</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 320</td>
<td>Telephone Techniques</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 330</td>
<td>Beginning Word Processing</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 362</td>
<td>Introduction to Business Presentation Software</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 363</td>
<td>Understanding the Internet</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 366</td>
<td>Proofreading Techniques</td>
<td>1</td>
</tr>
<tr>
<td>BUSAD 300</td>
<td>Machine Calculation</td>
<td>2</td>
</tr>
<tr>
<td>BUSAD 310</td>
<td>Bookkeeping 1</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 201</td>
<td>3</td>
<td>General Computer Literacy</td>
</tr>
<tr>
<td>CMPSC 202</td>
<td>3</td>
<td>Business Information Systems</td>
</tr>
<tr>
<td>CMPSC 203</td>
<td>3</td>
<td>Technical Computer Literacy</td>
</tr>
<tr>
<td>CMPGR 263</td>
<td>3</td>
<td>Internet Literacy</td>
</tr>
<tr>
<td>CMPSC 278</td>
<td>3</td>
<td>Spreadsheet Software</td>
</tr>
<tr>
<td>CMPSC 275</td>
<td>3</td>
<td>Database Management Systems</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 120</td>
<td>3</td>
<td>Basic Drawing 1</td>
</tr>
<tr>
<td>ART 124</td>
<td>3</td>
<td>Color and Design 1</td>
</tr>
<tr>
<td>CMPGR 213</td>
<td>3</td>
<td>Applied Computer Graphics</td>
</tr>
<tr>
<td>CMPGR 202</td>
<td>3</td>
<td>Introduction to Computer Graphics</td>
</tr>
<tr>
<td>CMPGR 215</td>
<td>NP</td>
<td>Business Presentation Graphics</td>
</tr>
<tr>
<td>CMPGR 217</td>
<td>2</td>
<td>Computer Illustration Software</td>
</tr>
<tr>
<td>CMPGR 219*</td>
<td>4</td>
<td>Computer Graphics Portfolio Review</td>
</tr>
<tr>
<td>CMPGR 225</td>
<td>3</td>
<td>3D Modeling and Animation</td>
</tr>
<tr>
<td>CMPGR 235</td>
<td>2</td>
<td>Beginning Photoshop</td>
</tr>
<tr>
<td>CMPGR 263</td>
<td>NP</td>
<td>Internet Literacy</td>
</tr>
<tr>
<td>CMPGR 264</td>
<td>NP</td>
<td>Publishing on the World Wide Web</td>
</tr>
<tr>
<td>CMPGR 284</td>
<td>2</td>
<td>Desktop Video Animation</td>
</tr>
<tr>
<td>CMPSC 201</td>
<td>3</td>
<td>General Computer Literacy</td>
</tr>
<tr>
<td>CMPSC 202</td>
<td>3</td>
<td>Business Information Systems</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES - COMPLETE 2 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 160</td>
<td>NP</td>
<td>Appreciation of Art</td>
</tr>
<tr>
<td>ART 170</td>
<td>NP</td>
<td>Basic Photography 3 OR</td>
</tr>
<tr>
<td>ART 181</td>
<td>NP</td>
<td>Basic Photography 1 1½ OR</td>
</tr>
<tr>
<td>ART 182</td>
<td>NP</td>
<td>Basic Photography 2 1½</td>
</tr>
<tr>
<td>CGR 201</td>
<td>NP</td>
<td>Graphic Arts Fundamentals</td>
</tr>
<tr>
<td>ART 123</td>
<td>NP</td>
<td>Figure Drawing</td>
</tr>
<tr>
<td>ELTEC 315</td>
<td>NP</td>
<td>Introduction to Media Systems</td>
</tr>
<tr>
<td>ELETEC 322</td>
<td>NP</td>
<td>Introduction to E.R.P.</td>
</tr>
<tr>
<td>CMPSC 201</td>
<td>3</td>
<td>General Computer Literacy</td>
</tr>
<tr>
<td>CMPGR 236</td>
<td>NP</td>
<td>Advanced Photoshop</td>
</tr>
<tr>
<td>CMPGR 252</td>
<td>3</td>
<td>Desktop Publishing for Computer Graphics</td>
</tr>
<tr>
<td>CMPGR 262</td>
<td>NP</td>
<td>Exploring the World Wide Web</td>
</tr>
<tr>
<td>CMPGR 263</td>
<td>NP</td>
<td>Internet Literacy</td>
</tr>
<tr>
<td>CMPGR 264</td>
<td>NP</td>
<td>Publishing on the World Wide Web</td>
</tr>
<tr>
<td>CMPGR 265</td>
<td>NP</td>
<td>Multimedia on the World Wide Web</td>
</tr>
<tr>
<td>CMPGR 267</td>
<td>2</td>
<td>Dreamweaver in Website Design</td>
</tr>
</tbody>
</table>
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. 69) or the University Preparation Pathway (p. 65) which include completion of Required and Elective courses for certificate, with the exception of CMPGR 219.

TOTAL UNITS REQUIRED IN A.S. MAJOR ................................................................. 39

A.A. 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 of 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. 69) or the University Preparation Pathway (p. 65) which include completion of Required and Elective courses for certificate, with the exception of CMPGR 219.

REQUIRED COURSES - COMPLETE 21 UNITS

- BUSAD 201 [1] Financial Accounting ................................................................... 4

MINIMUM UNITS IN A.A. MAJOR ........................................................................... 21
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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 204</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 205</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 206</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 213</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES – COMPLETE 3-4 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 214</td>
<td>3</td>
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<tr>
<td>CMPSC 216</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 261</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 291</td>
<td>3</td>
</tr>
</tbody>
</table>

MINIMUM UNITS FOR CERTIFICATE OF ACHIEVEMENT ................. 16

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Computer Science

PROGRAM

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

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

A.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 of 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. 69) or the University Preparation Pathway  (p.
65) 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 educational patterns, and campus major 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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFADM 301</td>
<td>1½</td>
</tr>
</tbody>
</table>

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

---

EDUCATIONAL PROGRAMS IN BUSINESS

ACADEMIC PROGRAMS
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 of 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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below. Students are urged to meet with a Computer Science faculty advisor to assist them plan their specific program for graduation.

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

REQUIRED OPTION - COMPLETE ONE OPTION FOR 30-33 UNITS

Information Systems Option

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 203</td>
<td>1</td>
<td>Technical Computer Literacy</td>
</tr>
<tr>
<td>CMPSC 204</td>
<td>1</td>
<td>Introduction to Programming</td>
</tr>
<tr>
<td>CMPSC 275</td>
<td>1</td>
<td>Database Management Systems</td>
</tr>
<tr>
<td>CMPSC 202</td>
<td>2</td>
<td>Business Information Systems</td>
</tr>
<tr>
<td>CMPSC 213</td>
<td>2</td>
<td>Programming with Visual Basic</td>
</tr>
<tr>
<td>CMPSC 276</td>
<td>2</td>
<td>Web Database Development</td>
</tr>
<tr>
<td>CMPSC 225</td>
<td>3</td>
<td>Database Programming with SQL</td>
</tr>
<tr>
<td>CMPSC 278</td>
<td>3</td>
<td>Spreadsheet Software</td>
</tr>
<tr>
<td>CMPSC 220</td>
<td>4</td>
<td>Database Server Administration</td>
</tr>
<tr>
<td>CMPSC 294</td>
<td>4</td>
<td>Computer Science Final Project</td>
</tr>
</tbody>
</table>

Networking Option

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 204</td>
<td>1</td>
<td>Introduction to Programming</td>
</tr>
<tr>
<td>CMPSC 263</td>
<td>2</td>
<td>Networking Essentials</td>
</tr>
<tr>
<td>CMPSC 206</td>
<td>2</td>
<td>UNIX/Linux OS</td>
</tr>
<tr>
<td>CMPSC 220</td>
<td>4</td>
<td>Database Server Administration</td>
</tr>
<tr>
<td>CMPSC 264</td>
<td>2</td>
<td>Windows Server OS</td>
</tr>
<tr>
<td>CMPSC 225</td>
<td>3</td>
<td>Database Programming with SQL</td>
</tr>
<tr>
<td>CMPSC 281</td>
<td>3</td>
<td>Advanced Networking and Security</td>
</tr>
<tr>
<td>CMPSC 289</td>
<td>3</td>
<td>Directory Services</td>
</tr>
<tr>
<td>CMPSC 202</td>
<td>4</td>
<td>Business Information Systems</td>
</tr>
<tr>
<td>CMPSC 294</td>
<td>4</td>
<td>Computer Science Final Project</td>
</tr>
</tbody>
</table>

Programming Option

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 201</td>
<td>1</td>
<td>General Computer Literacy</td>
</tr>
<tr>
<td>CMPSC 204</td>
<td>1</td>
<td>Introduction to Programming</td>
</tr>
<tr>
<td>CMPSC 205</td>
<td>2</td>
<td>Problem Solving and Programming 1</td>
</tr>
<tr>
<td>CMPSC 206</td>
<td>2</td>
<td>UNIX/Linux OS</td>
</tr>
<tr>
<td>CMPSC 213</td>
<td>2</td>
<td>Programming with Visual Basic</td>
</tr>
<tr>
<td>CMPSC 214</td>
<td>3</td>
<td>Advanced Visual Basic</td>
</tr>
<tr>
<td>CMPSC 216</td>
<td>2</td>
<td>Script Programming for the Web</td>
</tr>
<tr>
<td>CMPSC 261</td>
<td>3</td>
<td>Problem Solving and Programming 2</td>
</tr>
<tr>
<td>CMPSC 241</td>
<td>4</td>
<td>Assembly Language Programming</td>
</tr>
<tr>
<td>CMPSC 294</td>
<td>4</td>
<td>Computer Science Final Project</td>
</tr>
</tbody>
</table>

MINIMUM UNITS IN A.S. MAJOR .................................................. 30-33

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

- To earn a Skills Recognition Award, 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAD 201</td>
<td>1</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>BUSAD 208</td>
<td>1</td>
<td>Survey of International Business</td>
</tr>
<tr>
<td>BUSAD 209</td>
<td>2</td>
<td>Import/Export Fundamentals</td>
</tr>
<tr>
<td>BUSAD 218</td>
<td>3</td>
<td>Business Law</td>
</tr>
<tr>
<td>CMPSC 202</td>
<td>2</td>
<td>Business Information Systems</td>
</tr>
</tbody>
</table>

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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 20 UNITS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAD 230</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 245</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 299A-B</td>
<td>Marketing Projects</td>
<td>1-2</td>
</tr>
<tr>
<td>BUSAD 358</td>
<td>Sales and Ad Promotion</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 215</td>
<td>Business Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 201</td>
<td>General Computer Literacy</td>
<td>3</td>
</tr>
</tbody>
</table>

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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

REQUIRED COURSES – COMPLETE 20 UNITS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAD 230</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 245</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 299A-B</td>
<td>Marketing Projects</td>
<td>1-2</td>
</tr>
<tr>
<td>BUSAD 358</td>
<td>Sales and Ad Promotion</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 215</td>
<td>Business Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 201</td>
<td>General Computer Literacy</td>
<td>3</td>
</tr>
</tbody>
</table>

MINIMUM UNITS IN A.A. MAJOR ................................................................. 20

Network Administration

PROGRAM

This certificate is designed for students seeking entry-level 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.
5. To earn a Certificate of Achievement, the student must complete the following coursework. Each course must be completed with a grade of C or better.

REQUIRED COURSES – COMPLETE 15 UNITS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 206</td>
<td>UNIX/Linux OS.</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 220</td>
<td>Database Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 264</td>
<td>Windows Server OS.</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 281</td>
<td>Advanced Networking and Security</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 289</td>
<td>Directory Services.</td>
<td>3</td>
</tr>
</tbody>
</table>

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

Certificate of Achievement: Computer Network Technician

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.
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 15 UNITS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 206</td>
<td>UNIX/Linux OS.</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 220</td>
<td>Database Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 264</td>
<td>Windows Server OS.</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 281</td>
<td>Advanced Networking and Security</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 289</td>
<td>Directory Services.</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT........................................ 15
## Educational Programs in Business

### Required Courses - Complete 14 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 201</td>
<td>General Computer Literacy</td>
<td>3</td>
</tr>
<tr>
<td>CMPET 206</td>
<td>Personal Computer Assembly, Upgrading and Repair (CompTIA A+)</td>
<td>3</td>
</tr>
<tr>
<td>CMPET 210</td>
<td>Intermediate Personal Computer Assembly, Upgrading, and Repair (CompTIA A+)</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 262</td>
<td>Exploring the Internet</td>
<td>1</td>
</tr>
<tr>
<td>CMPSC 263</td>
<td>Networking Essentials</td>
<td>4</td>
</tr>
</tbody>
</table>

### Elective Courses - Complete 3 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 206</td>
<td>UNIX/Linux Systems and Programming</td>
<td>3</td>
</tr>
<tr>
<td>ELT EC 208</td>
<td>World of Electricity and Electronics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units for Certificate of Achievement**: 17

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### Office Administration

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

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

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

### Required Courses - Complete 32 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFADM 202</td>
<td>Intermediate Keyboarding</td>
<td>2</td>
</tr>
<tr>
<td>OFADM 231</td>
<td>Intermediate Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 311</td>
<td>Business Proofreading and Editing</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 314</td>
<td>Office Procedures and Technologies</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 315</td>
<td>Today's Office</td>
<td>2</td>
</tr>
<tr>
<td>OFADM 359</td>
<td>Introduction to Spreadsheet Software</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 361</td>
<td>Introduction to Databases</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 363</td>
<td>Understanding the Internet</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 320</td>
<td>Telephone Techniques</td>
<td>1</td>
</tr>
<tr>
<td>BUSAD 210</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 232</td>
<td>Advanced Word Processing &amp; Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 329</td>
<td>Machine Transcription</td>
<td>2</td>
</tr>
<tr>
<td>OFADM 375</td>
<td>10-Key on the Computer</td>
<td>1</td>
</tr>
<tr>
<td>CMPGR 215</td>
<td>Business Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 50</td>
<td>Business Math</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units for Certificate of Achievement**: 32
A.A. Degree: Office Administration

Upon the successful completion of the A.A. degree in Office Administration 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. Competently communicate in support of a business including production and design of complex electronic and paper based correspondence and documents.
3. Demonstrate the ability to competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines.
4. Actively assist in implementing general office procedures, including records management.
5. Use the Internet, a wide variety of computer applications, and standard business procedures to compute, analyze business performance and solve problems.
6. Efficiently perform office related duties utilizing prioritization and necessary communication skills.

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 69) or the University Preparation Pathway (p. 65) which includes the following requirements:

REQUIRED COURSES - COMPLETE 18 UNITS

OFADM 201 [NP] Keyboarding I..........................................................1
OFADM 202 [NP] Keyboarding II.......................................................1
OFADM 301 [1] Beginning Keyboarding...........................................1½
OFADM 303 [NP] Keyboarding for Speed and Accuracy (May be repeated up to a maximum of 2 units) ...........................................½
OFADM 304 [NP] Professional English for Business............................1
OFADM 305 [NP] Records Management..............................................1
OFADM 328 [NP] Machine Transcription I...........................................1
OFADM 329 [NP] Machine Transcription II..........................................1
OFADM 331 [1] Intermediate Word Processing.................................2
OFADM 340 [1] Introduction to Databases...........................................1
OFADM 353 [1] Introduction to Windows............................................1
OFADM 359 [1] Introduction to Spreadsheet Software.........................1
OFADM 361 [2] Introduction to Databases...........................................1
OFADM 362 [2] Introduction to Business Presentation Software...............1
BUSAD 231 [2] Intermediate Word Processing......................................3
BUSAD 202 [1] Intermediate Keyboarding II.......................................2
BUSAD 320 [1] Telephone Techniques................................................1
BUSAD 303 [NP] Keyboarding for Speed and Accuracy (May be repeated up to a maximum of 2 units) ...........................................½

MINIMUM UNITS IN A.A. MAJOR ....................................................... 20

A.S. Degree: Office Administration

Upon the successful completion of the A.S. degree in Office Administration 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. Competently communicate in support of a business, including production and design of complex electronic and paper based correspondence and documents.
3. Demonstrate the ability to competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines.
4. Actively assist in implementing general office procedures, including records management.
5. Use the Internet, a wide variety of computer applications, and standard business procedures to compute, analyze business performance and solve problems.
6. Efficiently perform office related duties utilizing prioritization and necessary communication skills.

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 69) or the University Preparation Pathway (p. 65) which include completion of the required courses for AA Degree, the 10 Elective units below. Student should consult with an Office Administration advisor for selection of Elective Units.

ELECTIVE COURSES - COMPLETE 10 UNITS

CMPGR 215 [NP] Business Presentation Graphics..............................................3
BUSAD 310 [NP] Bookkeeping I............................................................3
BUSAD 377 [NP] Human Relations in Business........................................3
OFADM 303 [NP] Keyboarding for Speed and Accuracy (May be repeated up to a maximum of 2 units) ...........................................½
OFADM 304 [NP] Professional English for Business....................................1
OFADM 305 [NP] Records Management.....................................................3
OFADM 328 [NP] Machine Transcription I....................................................1
OFADM 329 [NP] Machine Transcription II....................................................2
OFADM 375 [NP] 10-Key on the Computer..................................................1
SUPR 351 [NP] Elements of Supervision....................................................3

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

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.
3. Use the Internet, a wide variety of computer applications and standard business procedures to compute, analyze business performance and solve problems.
4. Actively assist in implementing general office procedures, including records management.
5. Use the Internet, a wide variety of computer applications and standard business procedures to compute, analyze business performance and solve problems.
6. Efficiently perform office related duties utilizing prioritization and necessary communication skills.

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

REQUIRED COURSES - COMPLETE 18 UNITS

OFADM 301 [1] Beginning Keyboarding.............................................1½
OFADM 303 [1] Beginning Word Processing........................................2
OFADM 331 [1] Intermediate Word Processing....................................3
OFADM 362 [2] Introduction to Business Presentation Software...............1
OFADM 363 [1] Introduction to Business Presentation Software...............1
OFADM 362 [2] Introduction to Business Presentation Software...............1
OFADM 363 [1] Introduction to Business Presentation Software...............1

MINIMUM UNITS FOR CERTIFICATE OF ACHIEVEMENT ................. 18
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

<table>
<thead>
<tr>
<th>Course</th>
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<td>OFADM 301</td>
<td>Beginning Keyboarding</td>
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<td>Beginning Document Processing</td>
<td>1½</td>
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<tr>
<td>OFADM 304</td>
<td>Professional English for Business</td>
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<td>OFADM 305</td>
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<td>OFADM 314</td>
<td>Office Procedures and Technologies</td>
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</tr>
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<td>OFADM 320</td>
<td>Telephone Techniques</td>
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<tr>
<td>OFADM 330</td>
<td>Beginning Word Processing</td>
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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

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<tr>
<th>Course</th>
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<td>BUSAD 245</td>
<td>Principles of Marketing</td>
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<tr>
<td>BUSAD 377</td>
<td>Human Relations in Business</td>
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<tr>
<td>MATH 50</td>
<td>Business Math</td>
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<tr>
<td>SPCOM 100</td>
<td>Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>Composition and Reading</td>
<td>3     OR</td>
</tr>
<tr>
<td>ENGL 50</td>
<td>Basic Composition and Reading</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 201</td>
<td>Financial Accounting</td>
<td>4     OR</td>
</tr>
<tr>
<td>BUSAD 310</td>
<td>Bookkeeping 1</td>
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<tr>
<td>BUSAD 240</td>
<td>Principles of Management</td>
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<tr>
<td>BUSAD 358</td>
<td>Sales and Ad Promotion</td>
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</table>

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

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<tr>
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<td>RLES 380</td>
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<td>Real Estate Principles</td>
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<td>RLES 381</td>
<td>3</td>
<td>Real Estate Practices</td>
</tr>
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<td>RLES 384</td>
<td>3</td>
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<td>RLES 385</td>
<td>3</td>
<td>Real Estate Appraisal/Residential</td>
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<td>RLES 392</td>
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<td>Basic Escrow Procedures</td>
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#### ELECTIVE COURSES COMPLETE 6-8 UNITS

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<td>RLES 382</td>
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<td>Legal Aspects of Real Estate</td>
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<tr>
<td>BUSAD 218</td>
<td>3</td>
<td>Business Law</td>
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<tr>
<td>BUSAD 201</td>
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<td>Financial Accounting</td>
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</table>

Complete 3-5 units to meet 26 unit requirement

Courses in Business Administration, Economics, Psychology, or Speech Communication ...... 3

#### 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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

#### REQUIRED COURSES - COMPLETE 20 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>RLES 380</td>
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<td>Real Estate Principles</td>
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<tr>
<td>RLES 381</td>
<td>3</td>
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<td>RLES 382</td>
<td>3</td>
<td>Legal Aspects of Real Estate 1</td>
</tr>
<tr>
<td>RLES 384</td>
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<td>Real Estate Finance</td>
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<tr>
<td>BUSAD 201</td>
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<td>Financial Accounting</td>
</tr>
<tr>
<td>BUSAD 218</td>
<td>4</td>
<td>Business Law</td>
</tr>
</tbody>
</table>

#### 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. 69) or the University Preparation Pathway (p. 65) 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</tr>
<tr>
<td>BUSAD 218</td>
<td>1</td>
<td>Business Law</td>
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</tbody>
</table>

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

REQUIRED COURSES - COMPLETE 16 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
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<tbody>
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<td>OFADM 301</td>
<td>Beginning Keyboarding</td>
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<td>OFADM 302</td>
<td>Beginning Document Processing</td>
<td>1½</td>
</tr>
<tr>
<td>OFADM 304</td>
<td>Professional English for Business</td>
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</tr>
<tr>
<td>OFADM 305</td>
<td>Records Management</td>
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</tr>
<tr>
<td>OFADM 313</td>
<td>Office Skills</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 361</td>
<td>Introduction to Databases</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 375</td>
<td>10-Key on the Computer</td>
<td>1</td>
</tr>
<tr>
<td>BUSAD 300</td>
<td>Machine Calculations</td>
<td>2</td>
</tr>
</tbody>
</table>

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.

REQUIRED COURSES - COMPLETE 12 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MATH 50</td>
<td>Business Math</td>
<td>3</td>
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<tr>
<td>ENGL 50</td>
<td>Basic Composition and Reading</td>
<td>3 OR</td>
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<tr>
<td>ENGL 101</td>
<td>Composition and Reading</td>
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</tr>
<tr>
<td>CMFSC 201</td>
<td>General Computer Literacy</td>
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<td>Business Information Systems</td>
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<td>SPOM 100</td>
<td>Fundamentals of Public Speaking</td>
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<td>SPOM 101</td>
<td>Voice and Articulation</td>
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<td>SPOM 102</td>
<td>Introduction to Human Communication</td>
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<td>SPOM 106</td>
<td>Group Organizational Communication</td>
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<tr>
<td>BUSAD 240</td>
<td>Principles of Management</td>
<td>3 OR</td>
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<td>SUPR 351</td>
<td>Elements of Supervision</td>
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<td>BUSAD 310</td>
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<td>BUSAD 310</td>
<td>Business Proofreading and Editing</td>
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<td>OFADM 354</td>
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</table>

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

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 Training 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

REQUIRED COURSES - COMPLETE 12 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPR 106</td>
<td>Group and Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>SUPR 351</td>
<td>Elements of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 274</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>SUPR 364</td>
<td>Total Quality Management</td>
<td>3</td>
</tr>
</tbody>
</table>

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 Training 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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**REQUIRED COURSES - COMPLETE 12 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>SUFR 106</td>
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**ELECTIVE COURSES - COMPLETE 9 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BUSAD 310</td>
<td>Bookkeeping 1</td>
<td>3 OR</td>
</tr>
<tr>
<td>BUSAD 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 304</td>
<td>Professional English for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 240</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 245</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 248</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 377</td>
<td>Human Relations in Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**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 Training 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. 69) or the University Preparation Pathway (p. 65) 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**

<table>
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<tr>
<th>Course Code</th>
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<td>3</td>
</tr>
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</table>

**ELECTIVE COURSES - COMPLETE 9 UNITS**

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<th>Course Code</th>
<th>Title</th>
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</tr>
<tr>
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<td>Human Relations in Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**ADDITIONAL ELECTIVE COURSES - COMPLETE 9 UNITS**

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

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

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**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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFADM 303</td>
<td>Keyboarding for Speed &amp; Accuracy (twice at ½ unit)</td>
<td>1</td>
</tr>
<tr>
<td>OFADM 203</td>
<td>Intermediate Keyboarding</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 231</td>
<td>Intermediate Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 232</td>
<td>Advanced Word Processing &amp; Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 311</td>
<td>Business Prototyping and Editing</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 314</td>
<td>Office Procedures and Technologies</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 359</td>
<td>Introduction to Spreadsheet Software</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 361</td>
<td>Introduction to Databases</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 365</td>
<td>Understanding the Internet</td>
<td>3</td>
</tr>
<tr>
<td>OFADM 364</td>
<td>Grammar in the Office</td>
<td>3</td>
</tr>
<tr>
<td>BUSAD 210</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 215</td>
<td>Business Presentation Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES - COMPLETE 6 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPGR 214</td>
<td>Digital Capture for Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 217</td>
<td>Computer Illustration Software</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 235</td>
<td>Beginning Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>CMPGR 264</td>
<td>Publishing on the World Wide Web</td>
<td>3</td>
</tr>
</tbody>
</table>

**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.
EDUCATIONAL PROGRAMS IN BUSINESS
Maurice McKinnon, EdD, 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, AA
Early Intervention Asst 1 (CLDDV) C
Early Intervention Asst 2 (CLDDV) C
Interior Design, AS, AA, C
Teacher (CLDDV) C
Master Teacher (CLDDV), C
Site Supervisor (CLDDV) C

SUPPORT STAFF
Colleen Norby, Administrative Specialist
Geri Wend, Administrative Secretary
The mission of the Child Development Department at Modesto Junior College is to enhance the intellectual, cultural, and economic strength of our diverse community by supporting and encouraging all students in their pursuit of lifelong learning and success, and in their abilities to strengthen children and families in the community.

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.

Learning to respond to the needs of children, families, staff, and agencies builds and nurtures children in becoming competent members of the larger diverse and global community.

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 of 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), 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 core 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.

It is recommended that first semester students select courses from the Child Development Associate Teacher Certificate of Achievement. Second semester students are encouraged to select courses for the Child Development Teacher Certificate of Achievement. 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 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 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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below

#### REQUIRED COURSES - COMPLETE 33 UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLDDV 101</td>
<td>Principles and Practices of Teaching Young Children</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 103</td>
<td>Child Growth and Development</td>
<td>3 or OR</td>
</tr>
<tr>
<td>CLDDV 104</td>
<td>Child Growth and Development - Conception</td>
<td>2 AND</td>
</tr>
<tr>
<td>CLDDV 105</td>
<td>Child Growth and Development - Late Childhood - Adolescence</td>
<td>2</td>
</tr>
<tr>
<td>CLDDV 107</td>
<td>Introduction to Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 109</td>
<td>Child-Family-Community</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 111</td>
<td>Health, Safety, and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 121</td>
<td>Guidance of Young Children</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 125</td>
<td>Infant and Toddler Development</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 126</td>
<td>Inclusion Special Needs Practicum</td>
<td>3-5 OR</td>
</tr>
<tr>
<td>CLDDV 127BCD</td>
<td>Infant and Toddler Practicum</td>
<td>2-4 OR</td>
</tr>
<tr>
<td>CLDDV 128</td>
<td>Preschool Practicum</td>
<td>3-5</td>
</tr>
<tr>
<td>CLDDV 163</td>
<td>Working with Children with Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 167</td>
<td>Observation and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 262</td>
<td>Diversity in Educational Settings</td>
<td>3</td>
</tr>
</tbody>
</table>

#### 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**

**REQUIRED COURSES - COMPLETE A MINIMUM OF 17 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLDDV 101</td>
<td>Principles and Practices of Teaching Young Children</td>
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</table>

**CHILD GROWTH AND DEVELOPMENT:**

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<tr>
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<th>Course Title</th>
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</tr>
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<tbody>
<tr>
<td>CLDDV 103</td>
<td>Child Growth and Development</td>
<td>3 OR</td>
</tr>
<tr>
<td>CLDDV 104</td>
<td>Child Growth and Development: Conception</td>
<td>2 AND</td>
</tr>
<tr>
<td>CLDDV 105</td>
<td>Child Growth and Development: Late Childhood - Adolescence</td>
<td>2</td>
</tr>
<tr>
<td>CLDDV 107</td>
<td>Introduction to Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 109</td>
<td>Child-Family-Community</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT**

12-13

Certificate of Achievement: **Teacher**

**EXPECTED STUDENT LEARNING OUTCOMES**

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

1. Recognize and describe various program types, societal and programmatic influences on development and learning, and assess the quality of care for young children.
2. Demonstrate a knowledge and understanding of the interaction between appropriate play and effective guidance as demonstrated in adult-child interactions and learning opportunities for young children.
3. Identify the whole child perspective in the early childhood developmental domains and the interaction between nature and nurture at the various stages of development.
4. Analyze current and past socioeconomic factors, poverty, changes in the family structure, culture and history, early care and education, and the role of the child in society.
5. Demonstrate the understanding that one of the roles of teachers is to locate community resources to connect families with the community to meet various families' needs.

**REQUIRED COURSES - COMPLETE A MINIMUM OF 15 UNITS**

<table>
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**CHILD GROWTH AND DEVELOPMENT:**

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<td>Introduction to Curriculum</td>
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</tr>
<tr>
<td>CLDDV 109</td>
<td>Child-Family-Community</td>
<td>3</td>
</tr>
</tbody>
</table>

**LAB PRACTICUM - COMPLETE A MINIMUM OF 3 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLDDV 125</td>
<td>Infant and Toddler Practicum</td>
<td>2-6</td>
</tr>
<tr>
<td>CLDDV 128</td>
<td>Preschool Practicum</td>
<td>2-5</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT**

24-30

Certificate of Achievement: **Master Teacher**

**REQUIRED COURSES - COMPLETE A MINIMUM OF 17 UNITS**

<table>
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</thead>
<tbody>
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<td>2</td>
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<td>CLDDV 107</td>
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</tr>
<tr>
<td>CLDDV 128</td>
<td>Preschool Practicum</td>
<td>2-5</td>
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</table>

**ELECTIVES - COMPLETE 9 UNITS:**

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<th>Course Title</th>
<th>Units</th>
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</thead>
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<td>CLDDV 111</td>
<td>Health, Safety, and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 121</td>
<td>Guidance of Young Children</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 125</td>
<td>Infant and Toddler Development</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 163</td>
<td>Working with Children with Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 167</td>
<td>Observation and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>CLDDV 262</td>
<td>Diversity in Educational Settings</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT**

32-38

As part of the MJC Certificate program, the student may choose one of the following 6-Unit options as a specialization or create a specialization. See the Child Development Program Matrix for program requirements.

- Literacy and Literature
- Creative Activities
- Early Intervention
- Family Child Care
- Administration
- Infant/Toddler Care
- Music
- Diversity in Educational Settings

**SELECT ONE 6-UNIT SPECIALIZATION OPTION FROM THE FOLLOWING:**

**ELECTIVES - COMPLETE 9 UNITS:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
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</tr>
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<td>CLDDV 262</td>
<td>Diversity in Educational Settings</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT**

24-30

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: Site Supervisor

**REQUIRED COURSES - COMPLETE A MINIMUM OF 23 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLDDV 101</td>
<td>1</td>
<td>Principles and Practices of Teaching Young Children</td>
</tr>
</tbody>
</table>

**CHILD GROWTH AND DEVELOPMENT:**

- CLDDV 103 [1] Child Growth and Development: 3 OR
- CLDDV 107 [1] Introduction to Curriculum 3

**LAB PRACTICUM - COMPLETE A MINIMUM OF 3 UNITS**

- CLDDV 127 BCD [3] Infant and Toddler Practicum 2-4 OR

**ELECTIVES - COMPLETE 9 UNITS:**

- CLDDV 125 [2] Infant and Toddler Development 3
- CLDDV 167 [4] Observation and Assessment 3

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT**

32-40

## Certificate of Achievement: Early Interventionist

**REQUIRED COURSES - COMPLETE A MINIMUM OF 32 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLDDV 101</td>
<td>1</td>
<td>Principles and Practices of Teaching Young Children</td>
</tr>
</tbody>
</table>

**CHILD GROWTH AND DEVELOPMENT:**

- CLDDV 103 [1] Child Growth and Development: 3 OR
- CLDDV 105 [1] Child Growth and Development: Late Childhood - Adolescence 2
- CLDDV 125 [2] Infant and Toddler Development 3
- CLDDV 167 [4] Observation and Assessment 3

**LAB PRACTICUM - COMPLETE A MINIMUM OF 3 UNITS**

- CLDDV 127 BCD [3] Infant and Toddler Practicum 2-4 OR

**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.

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**Culinary Arts/CLART 301 Program**

In response to an unprecedented budget crisis, this program was discontinued in Spring of 2011. For more information, see “Discontinued Educational Programs – Spring 2011” on page 86.
CHILD DEVELOPMENT PROGRAM MATRIX

The Child Development program focuses on the growth and development of children from conception to late adolescence. Students use this knowledge to effectively guide children by creating nurturing learning environments, and by responding to the needs of children, families, staff, agencies, and the larger community. The Child Development program includes both theoretical and practical courses. Training prepares students for a wide variety of careers in direct services for children and support services for families. Review the matrix below to see course requirements for each academic award, any corresponding State permits, and the recommended course sequence [1], [2], [3], or [4] for each award.

### State of California Child Permit Matrix

#### Child Development

<table>
<thead>
<tr>
<th>Permit Name</th>
<th>Associate</th>
<th>Teacher</th>
<th>Master Teacher</th>
<th>Site Supervisor</th>
<th>Early Interventionist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Teacher</td>
<td>16 General Education Units</td>
<td>16 General Education Units</td>
<td>All or none units with 34 Early Childhood/Child Development units (including required courses) + 16 General Education units</td>
<td>6/4</td>
<td></td>
</tr>
<tr>
<td>Additional Coursework</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours*</td>
<td>50 days at 3+ hours per day within 2 years</td>
<td>175 days at 3+ hours per day within 2 years</td>
<td>350 days at 3+ hours per day within 3 years</td>
<td>350 days at 3+ hours per day within 4 years including 160+ days of supervising adults</td>
<td>6/4</td>
</tr>
</tbody>
</table>

### 6-UNIT OPTIONS (required for AS Degree and Master Teacher Certificate) 3 units of the 6-Unit option must be a Child Development Course

<table>
<thead>
<tr>
<th>Music</th>
<th>Administration</th>
<th>Creative Activities</th>
<th>Early Intervention</th>
<th>Families and Culture</th>
<th>Family Child Care</th>
<th>Infant/Toddler</th>
<th>Literacy and Literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>(CLDDV) 293 (2 or 3)</td>
<td>150 or 290</td>
<td>160 or 262</td>
<td>232 or 160</td>
<td>274 or 4/11</td>
<td>160 or 122</td>
<td>279 or 4/11</td>
<td></td>
</tr>
<tr>
<td>(CLDDV) 210</td>
<td>151 or 291</td>
<td>163 or 163</td>
<td>232 or 160</td>
<td>274 or 4/11</td>
<td>160 or 122</td>
<td>163 or 4/11</td>
<td></td>
</tr>
</tbody>
</table>

* Students may design their own Master Teacher specializations; however, all specializations for a permit are subject to approval by the California Commission on Teacher Credentialing.

Numbers in brackets, i.e., [1], [2], [3], or [4] refer to the semesters in which the student should enroll in a given course.
INTERIOR DESIGN PROGRAM

The Interior Design program has a comprehensive curriculum based upon a nationally-accepted professional body of knowledge, reflected in the skills and competencies required to become a Certified Interior Designer (C.I.D.), and included in the California Community College Program Plan for Interior Design. The application of the principles and elements of design are incorporated into every course and the content addresses the critical issues affecting the built environment: technology, universal design, and sustainability. Product knowledge, communication and presentation skills, consumer trends, and the utilization of technology are embedded into the curriculum. Participation in professional development opportunities is encouraged.

The program focuses on the design of both residential and non-residential environments in response to the specific needs of the client, considering the factors of function, materials and structures, and aesthetics. The incorporation of professional practice issues such as ethics, licensing, and management provide a solid preparation for success in the workplace. The coursework is designed to prepare students for self-employment as well as for careers in residential design, retail sales, and specialties such as kitchen and bath design. The department has an extensive resource center, professional library and computer lab. It benefits from the support of the community of professional designers, fabricators, and manufacturers/representatives.

Additionally, the program offers an excellent opportunity for design professionals, who are currently working in the field, to update their skills and to accrue the required design-related academic units necessary to apply for the following certification examinations: NCIDQ, NKBA, CQRID and/or the IDEX Exam. Please consult www.CCIC.org for requirements to become a Certified Interior Designer (C.I.D.) in California.

Careers in Interior Design/ Merchandising include:

- Residential, Commercial or Institutional Design
- Kitchen and Bath Design
- Health Care; Retail, or Hospitality Design
- Education
- Product Design
- Universal or Special Population Design
- Historic Preservation
- System Space Planning
- Computer-Aided Drafting
- Specifications Writing
- Lighting

Professional Development and Lifelong Learning:

Due to the dynamic nature of interior design, students are encouraged to maintain a commitment to professional development and lifelong learning. Also, eligibility for the NCIDQ examination for certifications as a Certified Interior Designer requires a minimum of 40 semester hours that culminates in a certificate or degree.

EXPECTED STUDENT LEARNING OUTCOMES

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

1. Identify, research, and creatively solve problems pertaining to the function and quality of the interior environment.
2. Address design issues related to health, safety and welfare.
3. Apply specialized knowledge of interior construction and building systems, codes, finishes and furnishings.
4. Prepare documents and drawings related to the design of interior spaces.
5. Demonstrate knowledge of the fundamental relationship between interior design, architecture, service, engineering and the decorative arts.

Certificate of Achievement: Interior Design

To earn a Certificate of Achievement in Interior Design, the student must complete the requirements for certificate detailed in the matrix.

REQUIRED COURSES—COMPLETE 20 UNITS:

| INTD 100 [NP]  Introduction to Interior Design | 3
| INTD 120 [NP]  Color Theory and Application | 1 OR
| ART 124 [NP]  Color and Design | 3
| INTD 150 [NP]  History of Interior Design/Decorative Arts 1 | 3 OR
| INTD 155 [NP]  History of Interior Design/Decorative Arts 2 | 3
| INTD 200 [NP]  Interior Design Fundamentals | 3
| INTD 210 [NP]  Introduction to Sales and Marketing for Design | 3 OR
| INTD 270 [NP]  Business and Professional Practices | 3
| INTD 220 [NP]  Interior Finishes and Construction Materials | 3
| INTD 230 [NP]  Drafting for Interiors | 3 OR
| INTD 250 [NP]  CAD/D for interiors | 3

ELECTIVE COURSES—COMPLETE 5 UNITS:

| INTD 120 [NP]  Color Theory and Application | 3
| INTD 150 [NP]  Fabric for Interiors | 3
| INTD 140 [NP]  Rendering and Rapid Visualization | 3
| INTD 145 [NP]  Fundamentals of Lighting Design | 3
| INTD 150 [NP]  History of Interior Design/Decorative Arts 1* | 3
| INTD 155 [NP]  History of Interior Design/Decorative Arts 2* | 3
| INTD 160 [NP]  Asian Design and Decorative Arts | 3
| INTD 180 [NP]  Universal Design for Health Safety and Welfare | 3
| INTD 180 [NP]  Sustainable and Green Design | 3
| INTD 210 [NP]  Introduction to Sales and Marketing for Design | 3
| INTD 215 [NP]  Interior Design Studio 1 | 3
| INTD 220 [NP]  Drafting for Interiors | 3
| INTD 235 [NP]  Space Planning | 3
| INTD 245 [NP]  Kitchen and Bath Design | 3
| INTD 250 [NP]  CAD/D for interiors | 3
| INTD 270 [NP]  Business and Professional Practices* | 3
| INTD 280 [NP]  Special Topics in Design | 3
| INTD 280 [NP]  Community Design Project | 3
| ART 120 [NP]  Basic Drawing | 3
| ART 124 [NP]  Color and Design | 3
| ART 150 [NP]  Gallery Operations and Management | 3
| BUSAD 210 [NP]  Business Communication | 3
| BUSAD 210 [NP]  Business Law | 3
| BUSAD 240 [NP]  Business Internship | 3
| CMNCR 215 [NP]  Business Presentation Graphics | 3
| ENGR 210 [NP]  Introduction to Computer Assisted Drafting | 3
| ENGR 210 [NP]  Business and Professional Practices | 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT…………………………………….27
A.A. Degree: **Interior Design**

To earn an associate in arts degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**EXPECTED STUDENT LEARNING OUTCOMES**

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

1. Identify, research, and creatively solve problems pertaining to the function and quality of the interior environment.
2. Address design issues related to health, safety and welfare.
3. Apply specialized knowledge of interior construction and building systems, codes, finishes and furnishings.
4. Prepare documents and drawings relative to the design of interior spaces.
5. Demonstrate knowledge of the fundamental relationship between interior design, architecture, science, engineering and the decorative arts.

**REQUIRED COURSES** - COMPLETE THE 22 REQUIRED UNITS FOR CERTIFICATE OF ACHIEVEMENT

**ELECTIVE COURSES** - COMPLETE 2 UNITS FROM THE LIST OF ELECTIVES FOR THE CERTIFICATE OF ACHIEVEMENT

**MINIMUM UNITS IN A.A. MAJOR** ................................................................. 24

A.S. Degree: **Interior Design**

The Associate of arts degree is appropriate for students who plan to transfer to a four-year university to earn a bachelor’s degree. Students are advised to consult with an academic counselor regarding requirements specific to various colleges and universities.

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

6. Identify, research, and creatively solve problems pertaining to the function and quality of the interior environment.
7. Address design issues related to health, safety and welfare.
8. Apply specialized knowledge of interior construction and building systems, codes, finishes and furnishings.
9. Prepare documents and drawings relative to the design of interior spaces.
10. Demonstrate knowledge of the fundamental relationship between interior design, architecture, science, engineering and the decorative arts.

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**REQUIRED COURSES** - COMPLETE THE 22 REQUIRED UNITS FOR THE CERTIFICATE OF ACHIEVEMENT

**ELECTIVE COURSES** - COMPLETE 12 UNITS FROM THE LIST OF ELECTIVES FOR THE CERTIFICATE OF ACHIEVEMENT

**UNITS IN A.S. MAJOR** ................................................................................. 34
Patrick Bettencourt, 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
- Judy Gonzales, Admin. Secretary
- Rebecca Ramirez, Administrative Tech.

INSTRUCTIONAL SUPPORT STAFF
- Mary Calderon, Instructional Support Assistant
- Jacqueline Jordan, Instructional Support Assistant
- Elmo Maragol, Instructional Support Assistant

EDUCATIONAL PROGRAMS IN
LITERATURE & LANGUAGE ARTS
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 documented 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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**REQUIRED COURSES - COMPLETE 6 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 102</td>
<td>Advanced Composition &amp; Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 103</td>
<td>Advanced Composition and Critical Thinking</td>
<td>3</td>
</tr>
</tbody>
</table>

**REQUIRED COURSES - COMPLETE 3 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 163</td>
<td>Introduction to Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 131</td>
<td>Introduction to World Literature to 1500</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 132</td>
<td>Introduction to World Literature from 1500 to Present</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 135</td>
<td>Survey of American Literature to 1850</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 136</td>
<td>Survey of American Literature: 1850 to Present</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 137</td>
<td>Survey of English Literature to 18th Century</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 138</td>
<td>Survey of English Literature: 18th Century - Present</td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES - COMPLETE 11 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 105</td>
<td>Creative Writing: Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 106</td>
<td>Creative Writing: Short Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 108</td>
<td>Creative Writing: Autobiography</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 109</td>
<td>Creative Writing: Scriptwriting</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 112</td>
<td>Introduction to the Novel and Short Story</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 114</td>
<td>Introduction to Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 116</td>
<td>Introduction to Drama</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 131</td>
<td>Introduction to World Literature to 1500</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 132</td>
<td>Introduction to World Literature from 1500 to Present</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 135</td>
<td>Survey of American Literature to 1850</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 136</td>
<td>Survey of American Literature: 1850 to Present</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 137</td>
<td>Survey of English Literature to 18th Century</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 138</td>
<td>Survey of English Literature: 1700 to the Present</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 151</td>
<td>Introduction to Folklore</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 156</td>
<td>The Bible as Literature -- The Hebrew Canon and Intertestamental Writings</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 157</td>
<td>The Bible as Literature -- The New Testament</td>
<td>3</td>
</tr>
</tbody>
</table>

**MINIMUM UNITS IN A.A. MAJOR**

20
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.

REQUIRED COURSES - COMPLETE 17 UNITS

COMPLETE 3 UNITS:
ENGL 103 Advanced Composition and Critical Thinking ........................................... 3

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

FREN 101 [NP] French 1 ....................................................................................... 5
FREN 102 [NP] French 2 ....................................................................................... 5
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
ITAL 102 [NP] Italian 2 ....................................................................................... 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

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 firsthand 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 tests.
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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

REQUIRED PREPARATORY COURSES – COMPLETE 10 UNITS

SPAN 102 [1] Spanish 2 ....................................................................................... 5
SPAN 103 [1] Spanish 3 ....................................................................................... 5
SPAN 104 [1] Spanish 4 ....................................................................................... 5
SPAN 109 [2] Spanish for Spanish Speakers 1 .................................................... 5
SPAN 110 [NP] Spanish for Spanish Speakers 2 .................................................. 5

REQUIRED COURSES – COMPLETE 6 UNITS

SPAN 112 [NP] Intro to Chicano/a Literature ..................................................... 3
SPAN 173 [NP] Survey of Latin American Literature ........................................ 3

ELECTIVE COURSES – COMPLETE 6 UNITS

ENGL 172 [NP] Introduction to Chicano/a Literature ......................................... 3
ENGL 173 [NP] Introduction to Latin American Literature .................................. 3
HIST 125 [NP] History of Mexico ...................................................................... 3
HIST 145 [NP] History of Latin America ............................................................ 3
SOCIO 156 [NP] Mexican Culture in the United States ...................................... 3

MINIMUM UNITS IN A.A. MAJOR ................................................................. 22
MODIFICATION PENDING 01/22/13
NOT YET REFLECTED
William Kaiser, EdD, Dean
East Campus
PE Office, Room 105
(209) 575-6269

INSTRUCTION IN:
Health & Physical Education (HE)
Recreation (REC)
Dance (PE)
Physical Education
(PE, PEA, PEM, PEW, PEVM, PEVW)

AWARDS IN:
Physical Education, AA
Athletic Training/Sports Medicine, AS

SUPPORT STAFF
Grace Conde, Administrative Secretary
Shamira Pourlayas, Administrative Specialist

EDUCATIONAL PROGRAMS IN

PHYSICAL EDUCATION
**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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements belowCourses should be selected with the assistance of an Athletic Training faculty advisor.

**REQUIRED COURSES - COMPLETE 32 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 108</td>
<td>3</td>
</tr>
<tr>
<td>PE 111</td>
<td>3</td>
</tr>
<tr>
<td>PE 141</td>
<td>2</td>
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<td>ANAT 125</td>
<td>5</td>
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<td>CHEM 143</td>
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<tr>
<td>PHYSIO 101</td>
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<tr>
<td>PSYCH 101</td>
<td>3</td>
</tr>
</tbody>
</table>

**UNITS IN MAJOR** ............................................................................................................. 32

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**Health & Physical Education Program**

**A.S. Degree: University Preparation, Emphasis in Health & Physical Education (p. 181)**

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**Kinesiology Program**

The Associate in Science in Kinesiology for Transfer degree is intended for students who plan to complete a bachelor’s degree in Kinesiology or related subjects (Physical Education, Sport Science, Exercise Physiology, etc.) at a CSU campus. This degree focuses on practical application of the science based study of movement. Students who complete the degree will be able to demonstrate an understanding of how the body systems and structures work together to allow movement to occur.

Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU that does not accept this degree will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. For more information on university admission and transfer requirements, students should consult with a counselor for more information on university admission and transfer requirements.

**EXPECTED STUDENT LEARNING OUTCOMES**

1. Demonstrate preparedness to successfully continue studies in Kinesiology or a related subject at an upper-division level.
2. Relate basic motor skills and patterns to concepts, theories, and methods common to Kinesiology.
3. Consider how the body systems and structures work together to allow movement to occur.
4. Assess measurements and types of movement to evaluate individual performance.
5. Analyze content, concepts, and methods of kinesiology and assemble skills to enable the synthesis of this information within and across disciplines.

The following is required for the Associate in Science in Kinesiology 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.
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.

**AS-T Degree: Kinesiology (for Transfer)**

**REQUIRED CORE: (COMPLETE 14-16 UNITS)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 134</td>
<td>3</td>
</tr>
<tr>
<td>ANAT 125</td>
<td>5</td>
</tr>
<tr>
<td>PHYSIO 101</td>
<td>5</td>
</tr>
</tbody>
</table>

**MOVEMENT BASED COURSES:**

Select a maximum of one (1) course from any three (3) of the following areas for a minimum of three units: Aquatics, Combatives, Team Sports, Individual Sports, Fitness, Dance)

**MOVEMENT: AQUATICS AREA**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEC 102</td>
<td>1</td>
</tr>
<tr>
<td>PEC 108</td>
<td>1</td>
</tr>
<tr>
<td>PEC 168</td>
<td>1</td>
</tr>
</tbody>
</table>

**MOVEMENT: INTERMEDIATE AREA**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEC 169</td>
<td>1</td>
</tr>
<tr>
<td>PEC 170</td>
<td>1</td>
</tr>
<tr>
<td>PEC 171</td>
<td>1</td>
</tr>
</tbody>
</table>

**MOVEMENT: COMBATIVES AREA**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEC 157</td>
<td>1</td>
</tr>
<tr>
<td>PEC 162</td>
<td>1</td>
</tr>
<tr>
<td>PEC 163</td>
<td>1</td>
</tr>
</tbody>
</table>
EDUCATIONAL PROGRAMS IN PHYSICAL EDUCATION

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 social-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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

REQUIRED COURSES - COMPLETE 15 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 101</td>
<td>1</td>
<td>Emergency Response/CPR</td>
</tr>
<tr>
<td>BI 116</td>
<td></td>
<td>Biology: A Human Perspective</td>
</tr>
<tr>
<td>CHEM 143</td>
<td>4</td>
<td>Introductory College Chemistry, OR</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>5</td>
<td>General Chemistry 1</td>
</tr>
<tr>
<td>MATH 134</td>
<td>5</td>
<td>Elementary Statistics</td>
</tr>
</tbody>
</table>

List A: Select Two Courses (6-10 Units):

<table>
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<tr>
<th>Course</th>
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<th>Title</th>
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</thead>
<tbody>
<tr>
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<td>3</td>
<td>Emergency Response/CPR</td>
</tr>
<tr>
<td>BIO 116</td>
<td></td>
<td>Biology: A Human Perspective</td>
</tr>
<tr>
<td>CHEM 143</td>
<td>4</td>
<td>Introductory College Chemistry, OR</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>5</td>
<td>General Chemistry 1</td>
</tr>
<tr>
<td>MATH 134</td>
<td>5</td>
<td>Elementary Statistics</td>
</tr>
</tbody>
</table>

Total Units required in AS-T Major: 23-26
Units required for CSU-GE Breadth: 39 (or)
Units required for IGETC/CU Breadth: 37-39
CSU Transferable Electives (as needed): 4-7
Double-Counted Units: 9
Total Units required for AS-T Degree: 60

Note: Double counting courses in GE and the major is permissible. MVC Guidance and Activities are not required for the major.

1-5 units of PE activity classes from the following list:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEA 104</td>
<td>1</td>
<td>Adapted Strength Development</td>
</tr>
<tr>
<td>PEA 106</td>
<td>1</td>
<td>Functional Water Exercise</td>
</tr>
<tr>
<td>PEA 107</td>
<td>1</td>
<td>Adapted Swimming</td>
</tr>
<tr>
<td>PEA 108</td>
<td>1</td>
<td>Adapted Aquatics</td>
</tr>
<tr>
<td>PEA 119</td>
<td>1</td>
<td>Adapted Sports</td>
</tr>
<tr>
<td>PEA 144</td>
<td>1</td>
<td>Adaptive Fitness</td>
</tr>
<tr>
<td>PEC 102</td>
<td>½</td>
<td>Water Aerobics</td>
</tr>
<tr>
<td>PEC 106</td>
<td>½</td>
<td>Badminton</td>
</tr>
</tbody>
</table>

171
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEC 108</td>
<td>Deep Water Aerobics</td>
<td>1</td>
</tr>
<tr>
<td>PEC 111</td>
<td>Beginning Racquetball</td>
<td>1</td>
</tr>
<tr>
<td>PEC 112</td>
<td>Intermediate Racquetball</td>
<td>1</td>
</tr>
<tr>
<td>PEC 118</td>
<td>Bowling</td>
<td>1</td>
</tr>
<tr>
<td>PEC 120</td>
<td>Hip Hop</td>
<td>1</td>
</tr>
<tr>
<td>PEC 122</td>
<td>Modern Dance 1</td>
<td>1</td>
</tr>
<tr>
<td>PEC 123</td>
<td>Modern Dance 2</td>
<td>1</td>
</tr>
<tr>
<td>PEC 124</td>
<td>Modern Dance 3</td>
<td>1</td>
</tr>
<tr>
<td>PEC 126</td>
<td>Jazz 1</td>
<td>1</td>
</tr>
<tr>
<td>PEC 128</td>
<td>Aerobics</td>
<td>1</td>
</tr>
<tr>
<td>PEC 127</td>
<td>Ballet 1</td>
<td>1</td>
</tr>
<tr>
<td>PEC 129</td>
<td>Jazz 2</td>
<td>1</td>
</tr>
<tr>
<td>PEC 130</td>
<td>International Folk Dance</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEC 133</td>
<td>Ballet 1</td>
<td>1</td>
</tr>
<tr>
<td>PEC 134</td>
<td>Contact Impression</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEC 140</td>
<td>Exercise for Fitness</td>
<td>1</td>
</tr>
<tr>
<td>PEC 143</td>
<td>Beginning Golf</td>
<td>1</td>
</tr>
<tr>
<td>PEC 144</td>
<td>Intermediate Golf</td>
<td>1</td>
</tr>
<tr>
<td>PEC 147</td>
<td>Gymnastics</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEC 148</td>
<td>Yoga for Better Health</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEC 150</td>
<td>Intermediate Yoga for Better Health</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEC 157</td>
<td>Advanced Judo</td>
<td>1</td>
</tr>
<tr>
<td>PEC 159</td>
<td>Spirit Leadership Training</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEC 162</td>
<td>Aikido 1 Basic</td>
<td>1</td>
</tr>
<tr>
<td>PEC 163</td>
<td>Aikido 2</td>
<td>1</td>
</tr>
<tr>
<td>PEC 164</td>
<td>Self-Defense</td>
<td>1</td>
</tr>
<tr>
<td>PEC 165</td>
<td>Judo</td>
<td>1</td>
</tr>
<tr>
<td>PEC 166</td>
<td>Intermediate Judo</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEC 168</td>
<td>Beginning Swimming</td>
<td>1</td>
</tr>
<tr>
<td>PEC 169</td>
<td>Intermediate Swimming</td>
<td>1</td>
</tr>
<tr>
<td>PEC 170</td>
<td>Advanced Swimming</td>
<td>1</td>
</tr>
<tr>
<td>PEC 171</td>
<td>Swim for Fitness</td>
<td>1</td>
</tr>
<tr>
<td>PEC 172</td>
<td>Lifeguard Training</td>
<td>1</td>
</tr>
<tr>
<td>PEC 173</td>
<td>Table Tennis</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEC 175</td>
<td>Beginning Tennis</td>
<td>1</td>
</tr>
<tr>
<td>PEC 176</td>
<td>Intermediate Tennis</td>
<td>1</td>
</tr>
<tr>
<td>PEC 177</td>
<td>Advanced Tennis</td>
<td>1</td>
</tr>
<tr>
<td>PEC 178</td>
<td>Tournament Tennis</td>
<td>1</td>
</tr>
<tr>
<td>PEC 179</td>
<td>Track and Field</td>
<td>1</td>
</tr>
<tr>
<td>PEC 182</td>
<td>Training for Distance Running</td>
<td>1</td>
</tr>
<tr>
<td>PEC 183</td>
<td>Volleyball</td>
<td>1</td>
</tr>
<tr>
<td>PEC 184</td>
<td>Power Volleyball</td>
<td>1</td>
</tr>
<tr>
<td>PEC 186</td>
<td>Intermediate Volleyball</td>
<td>1</td>
</tr>
<tr>
<td>PEC 187</td>
<td>Pilates for Fitness</td>
<td>1</td>
</tr>
<tr>
<td>PEC 190</td>
<td>Advanced Water Polo</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEC 191</td>
<td>Power Lifting</td>
<td>1</td>
</tr>
<tr>
<td>PEC 195</td>
<td>Weight Training</td>
<td>1</td>
</tr>
<tr>
<td>PEC 197</td>
<td>Advanced Weight Training</td>
<td>1</td>
</tr>
<tr>
<td>PEM 108</td>
<td>Baseball</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEM 111</td>
<td>Baseball Team Play Concepts</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEM 112</td>
<td>Beginning Basketball</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEM 113</td>
<td>Intermediate Basketball</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEM 140</td>
<td>Advanced Basketball</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEM 141</td>
<td>Advanced Touch Football</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEM 162</td>
<td>Soccer</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEM 196</td>
<td>Advanced Wrestling</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEW 164</td>
<td>Women’s Indoor - Outdoor Soccer</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEW 166</td>
<td>Women’s Self-Defense</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEW 167</td>
<td>Women’s Beginning Judo</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEW 180</td>
<td>Women’s Softball</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEW 192</td>
<td>Women’s Weight Training</td>
<td>1</td>
</tr>
<tr>
<td>PEVM 100</td>
<td>Varsity Baseball</td>
<td>3</td>
</tr>
<tr>
<td>PEVM 105</td>
<td>Men’s Varsity Basketball (Fall)</td>
<td>3</td>
</tr>
<tr>
<td>PEVM 106</td>
<td>Men’s Varsity Basketball (Spring)</td>
<td>½, 1</td>
</tr>
<tr>
<td>PEVM 110</td>
<td>Men’s Varsity Cross-Country</td>
<td>3</td>
</tr>
<tr>
<td>PEVM 115</td>
<td>Varsity Football</td>
<td>3</td>
</tr>
<tr>
<td>PEVM 120</td>
<td>Men’s Varsity Golf</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minimum Units in A.A. Major** ................................................................. 20
Pedro Mendez, Dean
John Sola, Director
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)

SUPPORT STAFF
Erik Klevmyer, Fire Science Facility Technician
Gail Campbell, Administrative Secretary

EDUCATIONAL PROGRAMS IN
PUBLIC SAFETY
Emergency Medical Technician (EMT) PROGRAM

ELIGIBILITY AND PREPARATION FOR EMT PROGRAM

• High school graduation or equivalent with transcripts on file in the MJC Records Office or
• High school student, 18 years of age or older, with a minimum GPA of 3.0, verified by transcripts on file in the MJC Records Office.
• Transcripts must be on file in the MJC Records Office prior to the first day of class.

PROGRAM REQUIREMENTS

All of the requisites must be valid through the end of the course and the EMT certification examination.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 350</td>
<td>First Responder with Health Care Provider CPR</td>
<td>3</td>
</tr>
<tr>
<td>CPR</td>
<td>A valid health care provider CPR card.</td>
<td></td>
</tr>
</tbody>
</table>

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.

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

• To earn a Skills Recognition Award, the student must complete the following required course with a grade of C or better.
  EMS 390 [NP] Emergency Medical Technician 1 .................................................. 6

TOTAL UNITS FOR SKILLS RECOGNITION AWARD............................................. 6

POLICY FOR DENIAL OF CERTIFICATION

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

Mountain-Valley Emergency Medical Services Agency
1101 Standiford Ave., Suite D1
Modesto, CA 95350
(209) 529-5085

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 Public Safety division.

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSCI 362 [2]</td>
<td>Basic Fire Academy</td>
<td>8</td>
</tr>
</tbody>
</table>

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

Certificate of Achievement: Fire Science

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSCI 301</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTIVE COURSES - COMPLETE 27 UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>FSCI 302</td>
<td>3</td>
</tr>
<tr>
<td>FSCI 303</td>
<td>3</td>
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<tr>
<td>FSCI 304</td>
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<td>FSCI 305</td>
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<td>FSCI 309</td>
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<td>FSCI 311</td>
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<td>FSCI 312</td>
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<td>FSCI 322</td>
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<tr>
<td>FSCI 374</td>
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<tr>
<td>FSCI 399</td>
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</tr>
<tr>
<td>FTECH 301 XABC</td>
<td>½,1,2,3</td>
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<tr>
<td>FTECH 310 XABC</td>
<td>½,1,2,3</td>
</tr>
<tr>
<td>EMS 350</td>
<td>3</td>
</tr>
<tr>
<td>EMS 380</td>
<td>3</td>
</tr>
<tr>
<td>EMS 389</td>
<td>½</td>
</tr>
<tr>
<td>EMS 390</td>
<td>6</td>
</tr>
<tr>
<td>EMS 391</td>
<td>1</td>
</tr>
<tr>
<td>NR 379</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT: 30
EDUCATIONAL PROGRAMS IN

SCIENCE, MATHEMATICS, & ENGINEERING

Brian Sanders, Dean
East Campus
Science Building, Room 126
(209) 575-6173

INSTRUCTION IN:
Anatomy (ANAT)
Anatomy & Physiology (AP)
Astronomy (ASTRO)
Biology (BIO)
Botany (BOT)
Chemistry (CHEM)
Earth Science (EASCI)
Engineering (ENGR)
Engineering Technology (ENGTC)
Geology (GEOL)
Mathematics (MATH)
Meteorology (METEO)
Microbiology (MICRO)
Physical Science (PHSCI)
Physics (PHYS)
Physiology (PHYSO)
Zoology (ZOOLO)

AWARDS IN:
Engineering, (AS)
Engineering Technology, (AS)
Mathematics, (AS-T)
Physical Science, (AS)

University Preparation with Emphasis in:
Biological Sciences (AS)
Chemistry (AS)
Earth Sciences (AS)
Environmental Science (AS)
Health and Physical Education (AS)
Physics (AS)

SUPPORT STAFF
Sandra Vanwey, Admin. Secretary
Joan Van Kuren, Admin. Specialist
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
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. 65) 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 within one area 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 141 (NP) Mechanics, Heat, and Waves ............................................... 5
PHYS 142 (NP) Electricity, Magnetism, Optics, Atomic and Nuclear Structure... 5

UNITS REQUIRED IN AREA OF EMPHASIS ...................................................... 20
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 of Arts degree in University Preparation, Emphasis in Earth Sciences will be able to:

1. Use the skills and concepts of differentiation and integration to solve applied problems in physics.
2. Identify and apply the vocabulary and principles of mechanics, wave theory, and thermodynamics to solve problems and explain natural phenomena.
3. Identify and apply the vocabulary and 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. 65) which include completion of the requirements below. See advisor for selection of courses.

**REQUIRED COURSES: COMPLETE 23 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 161</td>
<td>4</td>
</tr>
<tr>
<td>EASC 161</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 166</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 142</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>5</td>
</tr>
<tr>
<td>MATH 171</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>5</td>
</tr>
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</table>

**ELECTIVE COURSES: COMPLETE 8 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTRO 160</td>
<td>3</td>
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<tr>
<td>ASTRO 151</td>
<td>1</td>
</tr>
<tr>
<td>BIO 101</td>
<td>5</td>
</tr>
<tr>
<td>BIO 111</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 172</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 102</td>
<td>5</td>
</tr>
<tr>
<td>MTEC 161</td>
<td>4</td>
</tr>
<tr>
<td>NR 200</td>
<td>4</td>
</tr>
<tr>
<td>EASC 162</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 143</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 102</td>
<td>5</td>
</tr>
<tr>
<td>ZOOL 101</td>
<td>4</td>
</tr>
</tbody>
</table>

2-3 units of:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 171</td>
<td>½ - 2</td>
</tr>
<tr>
<td>GEOL 174</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS IN AA MAJOR ................................................................. 31

---

**Engineering PROGRAM**

The Engineering program prepares students to transfer to four-year college and university programs. Most universities have several common undergraduate core classes regardless of the student’s eventual area of specialization (i.e. civil, mechanical, electrical/electronics, aeronautical, agricultural, chemical, industrial, etc.). However, the A.S. program is flexible enough to allow students to tailor their coursework to fit the specific requirements of their selected transfer institution. Students must work closely with their counseling and engineering faculty to assure a smooth transition.

A.S. Degree: **Engineering**

**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 Engineering will be able to:

1. Develop an educational plan and strategy for success in continued undergraduate education.
2. Perform appropriately as a member of a team, completing tasks and assuming appropriate roles.
3. Design and conduct experiments as well as analyze and interpret data.
4. Present projects professionally using effective oral presentation skills.
5. Research, analyze, and write effectively on engineering and science-related topics.
6. Develop engineering drawings according to professional standards and industry conventional practices.
7. Identify, analyze, and formulate solutions to engineering problems using skills obtained in mathematics, physics, chemistry, and engineering-related courses.
8. Recognize the need for engaging in life-long learning and professional development.

**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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**REQUIRED COURSES—COMPLETE 16 UNITS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENGR 100</td>
<td>[1]</td>
</tr>
<tr>
<td>MATH 111</td>
<td>5</td>
</tr>
<tr>
<td>MATH 112</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 102</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>5</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES—COMPLETE 15 UNITS**

Complete 6-units minimum Engineering coursework*.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 101</td>
<td>[1]</td>
</tr>
<tr>
<td>MATH 172</td>
<td>[2]</td>
</tr>
<tr>
<td>MATH 173</td>
<td>[3]</td>
</tr>
<tr>
<td>MATH 174</td>
<td>[4]</td>
</tr>
<tr>
<td>PHYS 103</td>
<td>[5]</td>
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<tr>
<td>PHYS 104</td>
<td>[6]</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>[1]</td>
</tr>
<tr>
<td>CHEM 102</td>
<td>[2]</td>
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<td>ENGR 172</td>
<td>[3]</td>
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<tr>
<td>ENGR 173</td>
<td>[4]</td>
</tr>
<tr>
<td>MATH 172</td>
<td>[5]</td>
</tr>
<tr>
<td>MATH 173</td>
<td>[6]</td>
</tr>
</tbody>
</table>

**MINIMUM UNITS IN A.S. MAJOR ........................................................................ 31

*Conversion of this degree from an AA to an AS is currently pending approval from the California Community Colleges Chancellor’s Office.
The Engineering Technology program prepares students to transfer to four-year college and university programs in Engineering or Industrial Technology. These disciplines focus on the application of engineering principles in design and manufacturing environments. Graduates typically find careers in facilities and plant operations, testing, technical sales, and positions as mechanical, manufacturing, and computer technicians.

Transfer institutions offer a wide variety of programs with varying requirements, so students must work closely with their counselors and engineering faculty to assure a smooth transition.

A.S. Degree: Engineering Technology

To earn an associate in science degree in the major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**REQUIRED COURSES – COMPLETE 20 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 143</td>
<td>Introductory College Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>General Chemistry 1</td>
<td>5</td>
</tr>
<tr>
<td>ENGR 100</td>
<td>Intro to Engineering &amp; Architecture</td>
<td>1</td>
</tr>
<tr>
<td>ENGR 127</td>
<td>Engineering Graphics</td>
<td>4</td>
</tr>
<tr>
<td>MATH 124</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>General Physics: Mechanics</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 142</td>
<td>Mechanics, Heat and Waves</td>
<td>5</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES – COMPLETE 11 UNITS**

Complete a minimum of 6 units from the following:

- CMPSC 201 [NP] General Computer Literacy .................................................... 3
- MACH 211D [NP] Machine Tool Technology I .................................................... 4
- WELD 200 [NP] Arc & Gas Welding ......................................................................... 3
- Any EL TEC 100 or 200 series course
- Any INTEC 100 or 200 series course

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

Environmental Sciences

**A.S. Degree*: University Preparation, Emphasis in Environmental Science

**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.

**EMPHASIS REQUIREMENTS**

To earn an Associate Degree with this emphasis, the student must complete the requirements detailed in the University Preparation Pathway (p. 65) which include completion of the requirements below. See advisor for selection of courses.

**REQUIRED COURSES – COMPLETE 18 UNITS.**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 101</td>
<td>Biological Principles</td>
<td>5</td>
</tr>
<tr>
<td>BOTT 101</td>
<td>General Botany</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>General Chemistry 1</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 143</td>
<td>Introductory College Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>GEOL 161</td>
<td>Physical Geology</td>
<td>4</td>
</tr>
</tbody>
</table>

**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 THE FOLLOWING FOUR COURSES.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 125</td>
<td>5</td>
</tr>
<tr>
<td>BIO 111</td>
<td>4</td>
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<tr>
<td>BIO 116</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 143</td>
<td>5</td>
</tr>
<tr>
<td>PHYSO 101</td>
<td>5</td>
</tr>
</tbody>
</table>

**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 A.S 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 of 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.

**COMPLETE 25 UNITS:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 171</td>
<td>5</td>
</tr>
<tr>
<td>MATH 172</td>
<td>5</td>
</tr>
<tr>
<td>MATH 173</td>
<td>5</td>
</tr>
<tr>
<td>MATH 174</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>5</td>
</tr>
</tbody>
</table>

**TOTAL UNITS IN AS-T MAJOR** 25

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

**Landscape Architecture Program**

In response to an unprecedented budget crisis, this program was discontinued in Spring of 2011. For more information, see "Discontinued Educational Programs: Spring 2011" on page 156.

*Conversion of this degree from an AA to an AS is currently pending approval from the California Community Colleges Chancellor’s Office*
A.S. Degree: **Physical Science**

This curriculum plan is intended for those interested in transferring to a four-year college or university. However, the courses in this program do not necessarily fulfill the prerequisites for the major of any particular institution. Students are encouraged to consult with their physical science and counseling staff in order to choose courses satisfying the prerequisites of the major and addressing the student’s career goals.

To earn an associate in science degree in this major, the student must complete the requirements detailed in the Career Technical Education Pathway (p. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**REQUIRED COURSES - COMPLETE 30 UNITS**

Complete all of the following courses:

- **CHEM 101 [1]** General Chemistry 1 ........................................ 5
- **CHEM 102 [2]** General Chemistry 2 ........................................ 5
- **MATH 171 [1]** Calculus: First Course ........................................ 5
- **MATH 172 [2]** Calculus: Second Course .................................... 5

Complete one of the following Physics sequences:

**Sequence A**

- **PHYS 101 [NP]** General Physics: Mechanics .......................... 5 AND
- **PHYS 102 [NP]** General Physics: Waves, Thermodynamics, & Optics .......................... 5

**Sequence B**

- **PHYS 101 [NP]** General Physics: Mechanics .......................... 5 AND
- **PHYS 102 [NP]** General Physics: Waves, Thermodynamics, & Optics .......................... 5

**Sequence C**

- **PHYS 141 [NP]** Mechanics, Heat, and Waves .......................... 5 AND
- **PHYS 142 [NP]** General Physics: Electricity, Magnetism, Optics, Atomic and Nuclear Structure .......................... 5

**ELECTIVE COURSES - COMPLETE 4 UNITS**

- **ASTRO 141 [NP]** Introduction to Astrophysics .......................... 3 AND
- **ASTRO 151 [NP]** Introduction to Astronomy Laboratory ............. 1
- **ASTRO 151 [NP]** Introduction to Astronomy Laboratory ............. 1 AND
- **ASMR 161 [NP]** Introduction to Modern Astronomy .................. 1
- **CHEM 112 [NP]** Organic Chemistry 1 ........................................ 5 OR
- **CHEM 113 [NP]** Organic Chemistry 2 ........................................ 5
- **GEOL 161 [NP]** Physical Geology ........................................... 4
- **FASC 161 [NP]** Earth Science .............................................. 4
- **MATH 173 [NP]** Calculus: Third Course ................................. 5

(Choose the following Physics course that has not been completed above)

- **PHYS 101 [NP]** General Physics: Mechanics .......................... 5
- **PHYS 102 [NP]** General Physics: Waves, Thermodynamics, & Optics .......................... 5

**MINIMUM UNITS IN A.S. MAJOR** ........................................... 34

---

**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. 65) 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.

The Swan Nebula is located about 5500 light-years away in the constellation Sagittarius. Students of astronomy and physics can explore this phenomenon.
Pedro Mendez, Dean
West Campus
John Muir Hall
(209) 575-6332

INSTRUCTION IN:
- Welding
- Machine Tool Technology (MACH)
- Electronics Technology (ELTEC)
- Autobody (AUBDY)
- Automotive Technology (AUTEC)
- 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
- Sheet Metal Fabricator, SR
- Shielded Metal Arc Welding, SR
- Welding, AS, SR

SUPPORT STAFF
- Norma Gallardo, Program Specialist
- Judy Tuss, Program Technician
- Elizabeth Hondoy, Program Technician
- Elizabeth Orozco-Witteke, Manager, International Contract Programs
- Macario Rodriguez, Instructional Support Specialist
- Shemi Warda, Administrative Secretary
- Mary Menge, Fiscal Analyst III
- Marla Uliana, Program Specialist
- Araceli Zarate, Program Specialist

EDUCATIONAL PROGRAMS IN
TECHNICAL EDUCATION & WORKFORCE DEVELOPMENT
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**

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

**Total Units** | 19

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. 65) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**Required Courses - Complete 27½ Units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUBDY 115</td>
<td>Introduction to Technical Industries</td>
<td>1</td>
</tr>
<tr>
<td>AUTEC 311</td>
<td>Basic Automotive Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUBDY 301</td>
<td>Automotive Collision Repair 1</td>
<td>5</td>
</tr>
<tr>
<td>AUBDY 302</td>
<td>Automotive Collision Repair 2</td>
<td>5</td>
</tr>
<tr>
<td>AUBDY 303</td>
<td>Automotive Collision Repair 3</td>
<td>4</td>
</tr>
<tr>
<td>AUBDY 321</td>
<td>Automotive Spray Refinishing 1</td>
<td>2</td>
</tr>
<tr>
<td>AUBDY 322</td>
<td>Automotive Spray Refinishing 2</td>
<td>3</td>
</tr>
<tr>
<td>AUTEC 323</td>
<td>Steering, Suspension, and Alignment</td>
<td>3½</td>
</tr>
<tr>
<td>AUTEC 321</td>
<td>A5: Braking Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUTEC 368</td>
<td>A6: Automotive Electricity</td>
<td>3½</td>
</tr>
</tbody>
</table>

**Elective Courses - Complete a Minimum of 3½ Units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTEC 321</td>
<td>A5: Braking Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUTEC 368</td>
<td>A6: Automotive Electricity</td>
<td>3½</td>
</tr>
</tbody>
</table>

**Total Units in A.S. Major** | 31
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.

1. 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 211 [2] Introduction to Technical Industries ........................................ 1
AUTEC 311 [1] Basic Automotive Systems ..................................................... 4
ELTEC 208 [2,3] World of Electricity and Electronics ...................................... 3½ OR
MACH 301 [1] Machine Shop I .................................................................... 3 OR
MACH 2110 [1] Machine Tool Technology ..................................................... 4

ELECTIVE COURSES - COMPLETE 27 UNITS

AUTEC 315 [2,3,4] Engine Rebuilding ......................................................... 3½
AUTEC 317 [3,4] Automotive Air Conditioning ............................................ 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 369 [3] AE: Automotive Electricity 2 ............................................. 4
AUTEC 399 [2] Independent Study ............................................................... 2

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

A.S. Degree: Automotive Technology

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 of 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] AE: Automotive Electricity/Electronic Systems 1 .................. 3½
AUTEC 369 [2,3] AE: Automotive Electricity 2 ............................................ 4

ELECTIVE COURSES: COMPLETE 18 UNITS

AUTEC 211 [2,3] Introduction to Alternative Fuels and Advanced Technology Vehicles ........................................... 3
AUTEC 319 [2,3] A8: Engine Performance ...................................................... 4
AUTEC 320 [3,4] L1: Advanced Engine Performance ....................................... 4
AUTEC 322 [2] A4: Steering, Suspension & Align .......................................... 4
ELTEC 208 [2] The World of Electricity and Electronics ............................ 3½

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.
3. 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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTEC 315</td>
<td>Basic Automotive Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUTEC 360</td>
<td>A6: Auto Electric/Electronic Systems 1</td>
<td>4</td>
</tr>
<tr>
<td>ELTEC 208</td>
<td>The World of Electricity &amp; Electronics</td>
<td>3½ OR</td>
</tr>
<tr>
<td>MACH 211D</td>
<td>Machine Tool Tech 1</td>
<td>4 OR</td>
</tr>
<tr>
<td>MACH 301</td>
<td>Machine Shop I</td>
<td>4</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES - COMPLETE 19 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTEC 315</td>
<td>Engine Rebuilding</td>
<td>3½</td>
</tr>
<tr>
<td>AUTEC 317</td>
<td>A7: Auto Heating and Air Conditioning</td>
<td>3½</td>
</tr>
<tr>
<td>AUTEC 319</td>
<td>A8: Engine Performance</td>
<td>3½</td>
</tr>
<tr>
<td>AUTEC 321</td>
<td>A5: Brakes Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUTEC 322</td>
<td>A4: Steering, Suspension, &amp; Alignment</td>
<td>4</td>
</tr>
<tr>
<td>AUTEC 323</td>
<td>A2: Automatic Transmissions &amp; Transaxles</td>
<td>3½</td>
</tr>
<tr>
<td>AUTEC 324</td>
<td>A3: Manual Transmissions &amp; Drive Axles</td>
<td>4</td>
</tr>
<tr>
<td>AUTEC 360</td>
<td>A6: Automotive Electric 2</td>
<td>4</td>
</tr>
</tbody>
</table>

**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.

**REQUIRED COURSES - COMPLETE 16 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTEC 208</td>
<td>The World of Electricity and Electronics</td>
<td>3</td>
</tr>
<tr>
<td>CMPET 212</td>
<td>Digital Principles and Circuits</td>
<td>3</td>
</tr>
<tr>
<td>CMPET 234</td>
<td>Microprocessor Programming and Interfacing</td>
<td>4</td>
</tr>
<tr>
<td>CMPET 206</td>
<td>Personal Computer Assembling, Upgrading, and Repair</td>
<td>3</td>
</tr>
<tr>
<td>CMPET 204</td>
<td>Introduction to Programming</td>
<td>3</td>
</tr>
</tbody>
</table>

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

**ELECTRONICS AREA**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPET 210</td>
<td>Intermediate Personal Computer Servicing</td>
<td>3</td>
</tr>
<tr>
<td>CMPET 232</td>
<td>Introduction to Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>CMPET 234</td>
<td>Advanced Topics in Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>CMPET 269</td>
<td>Network+ Certification Training Lab</td>
<td>1</td>
</tr>
<tr>
<td>ELTEC 221</td>
<td>Instrumentation Devices and Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**COMPUTER AREA**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 205</td>
<td>Problem Solving and Programming</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 213</td>
<td>Programming with Visual Basic</td>
<td>4</td>
</tr>
<tr>
<td>CMPSC 241</td>
<td>Assembly Language-Programming</td>
<td>4</td>
</tr>
<tr>
<td>CMPSC 263</td>
<td>Networking Essentials</td>
<td>4</td>
</tr>
<tr>
<td>CMPSC 264</td>
<td>Windows Server OS</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 276</td>
<td>Introduction to Data Warehousing</td>
<td>3</td>
</tr>
<tr>
<td>CMPSC 278</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
</tbody>
</table>

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

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Building & Safety Code Administration

In response to an unprecedented budget crisis, this program was discontinued in Spring of 2011. For more information, see “Discontinued Educational Programs - Spring 2011” on page 86.
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. 69) or the University Preparation Pathway (p. 65) 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
CMPET 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 CATEGORY
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
CMPET 205 [3] Problem Solving and Programming 1 ................................................. 3
CMPET 213 [3-4] Programming with Visual Basic ......................................................... 4
CMPET 241 [4] Assembly Language Programming ........................................................ 4
CMPET 263 [3-4] Networking Essentials ................................................................. 4
CMPET 264 [3-4] Windows Server OS ............................................................ 3
CMPET 276 [4] Introduction to Data Warehousing .......................................................... 3
CMPET 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 through 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 221 [3] Instrumentation Devices and Systems .............................................. 3
ELTEC 223 [2] Industrial Electrical Components & Control Devices ....................... 3
ELTEC 229 [3, 4] Commercial and Industrial Wiring .................................................. 3½
ELTEC 232 [2] Introduction to Programmable Logic Controllers ........................... 2
ELTEC 265 [1] Troubleshooting Techniques ................................................................. 1

ELECTIVE COURSES - COMPLETE 9 UNITS
ELTEC 214 [2, 3, 4] Microprocessor Programming and Interfacing .......................... 4
INTEC 202 [NP] Fundamentals of Industrial Technology ........................................... 2
INTEC 203 [1] Industrial Mechanical/Pneumatic Components ................................. 3
CMPET 206 [2, 3, 4] Personal Computer Assembling, Upgrading, and Repair .............. 3

TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT ..................................... 35½

In response to an unprecedented budget crisis, the programs above were discontinued in Spring of 2011. For more information, see “Discontinued Educational Programs - Spring 2011” on page 86.
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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**REQUIRED COURSES - COMPLETE 26½ UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL TEC 205</td>
<td>Electronics Fabrication &amp; Assembly Techniques</td>
<td>3</td>
</tr>
<tr>
<td>EL TEC 208</td>
<td>The World of Electricity and Electronics</td>
<td>3</td>
</tr>
<tr>
<td>EL TEC 212</td>
<td>Digital Principles and Circuits</td>
<td>3</td>
</tr>
<tr>
<td>EL TEC 221</td>
<td>Instrumentation Devices and Systems</td>
<td>3</td>
</tr>
<tr>
<td>EL TEC 223</td>
<td>Industrial Electrical Components &amp; Control Devices</td>
<td>3</td>
</tr>
<tr>
<td>EL TEC 226</td>
<td>Motors, Controls and Controllers</td>
<td>3</td>
</tr>
<tr>
<td>EL TEC 229</td>
<td>Commercial &amp; Industrial Wiring</td>
<td>3</td>
</tr>
<tr>
<td>EL TEC 232</td>
<td>Introduction to Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EL TEC 234</td>
<td>Advanced Topics in Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EL TEC 265</td>
<td>Troubleshooting</td>
<td>1</td>
</tr>
<tr>
<td>EL TEC 214</td>
<td>Introduction to Microprocessors &amp; Digital Systems</td>
<td>4</td>
</tr>
<tr>
<td>CMPET 206</td>
<td>Personal Computer Assembling,Upgrading, and Repairing</td>
<td>3</td>
</tr>
<tr>
<td>INTEC 202</td>
<td>Fundamentals of Industrial Technology</td>
<td>2</td>
</tr>
<tr>
<td>INTEC 203</td>
<td>Industrial Mechanical/Pneumatic Components</td>
<td>3</td>
</tr>
</tbody>
</table>

**MINIMUM UNITS IN A.S. MAJOR .......................................................... 30½**

**ELECTIVE COURSES - COMPLETE 4 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 219</td>
<td>Introduction to CNC Mill Programming</td>
<td>2</td>
</tr>
<tr>
<td>MACH 222</td>
<td>CNC Machine Operations</td>
<td>2</td>
</tr>
<tr>
<td>MACH 223</td>
<td>Advanced CNC Machine Operations</td>
<td>2</td>
</tr>
</tbody>
</table>

**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. Demonstrate compliance with current CNC machining safety and environmental regulations.
2. Perform CNC machine shop programming in accordance with industry recognized and accepted practices.

- To earn a Skills Recognition Award, student must complete the 11 required units. Each course must be completed with a C or better.

**REQUIRED COURSES – COMPLETE 9 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>MACH 218</td>
<td>Intro to CNC Lathe Programming</td>
<td>1</td>
</tr>
<tr>
<td>MACH 219</td>
<td>Intro to CNC Mill Programming</td>
<td>2 AND</td>
</tr>
<tr>
<td>MACH 220</td>
<td>CNC Machine Tool Programming</td>
<td>4</td>
</tr>
<tr>
<td>MACH 222</td>
<td>CNC Machine Operations</td>
<td>2</td>
</tr>
<tr>
<td>MACH 210</td>
<td>Advanced Topics in Machining</td>
<td>1</td>
</tr>
<tr>
<td>MACH 311</td>
<td>CNC Programming with Macros</td>
<td>1</td>
</tr>
<tr>
<td>MACH 312</td>
<td>4 Axis Mill Programming &amp; Operation</td>
<td>1</td>
</tr>
<tr>
<td>MACH 314</td>
<td>3D Part Programming for CNC</td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR SKILLS RECOGNITION AWARD................................. 11**
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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 211E</td>
<td>Machine Tool Technology</td>
<td>5</td>
</tr>
<tr>
<td>MACH 212E</td>
<td>Machine Tool Technology</td>
<td>5</td>
</tr>
<tr>
<td>MACH 213E</td>
<td>Machine Tool Technology</td>
<td>3</td>
</tr>
<tr>
<td>MACH 395ABC</td>
<td>Advanced Machine Tool Technology Laboratory</td>
<td>1-3   OR</td>
</tr>
<tr>
<td>WELD 200</td>
<td>Arc &amp; Gas Welding</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED UNITS FOR SKILLS RECOGNITION AWARD** .......................... 16

Certificate of Achievement:  
**Machine Tool Technology 2**

**EXPECTED STUDENT LEARNING OUTCOMES**

Students who earn a Certificate of Achievement in Machine Tool Technology 2 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 Certificate of Achievement, student must complete the 27 required units and one course from the elective.

**REQUIRED COMPETENCIES FOR CERTIFICATE**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MATH 20</td>
<td>Elementary Algebra</td>
<td>4 OR</td>
</tr>
<tr>
<td></td>
<td>Math 70 eligibility through assessment process</td>
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</table>

**REQUIRED COURSES - COMPLETE 27 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MACH 211E</td>
<td>Machine Tool Technology 1</td>
<td>5</td>
</tr>
<tr>
<td>MACH 212E</td>
<td>Machine Tool Technology 2</td>
<td>5</td>
</tr>
<tr>
<td>MACH 213D</td>
<td>Machine Tool Technology 3</td>
<td>4</td>
</tr>
<tr>
<td>WELD 200</td>
<td>Arc and Gas Welding</td>
<td>3</td>
</tr>
<tr>
<td>MACH 219</td>
<td>Introduction to CNC Mill Programming</td>
<td>2</td>
</tr>
<tr>
<td>MACH 220</td>
<td>CNC Machine Tool Programming</td>
<td>2</td>
</tr>
<tr>
<td>MACH 222</td>
<td>CNC Machine Operations</td>
<td>2</td>
</tr>
</tbody>
</table>

Complete 2 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 395ABC</td>
<td>Advanced Machine Tool Technology Laboratory</td>
<td>1-3   OR</td>
</tr>
<tr>
<td>MACH 310   (128,709),(288,718)</td>
<td>Advanced Topics in Machining</td>
<td>2</td>
</tr>
<tr>
<td>MACH 218</td>
<td>Intro to CNC Lathe Programming</td>
<td>2</td>
</tr>
</tbody>
</table>

Complete 2 units:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTEC 376</td>
<td>Mechanical Blue Print Reading</td>
<td>2</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES - COMPLETE 3 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 204</td>
<td>Gas Metal Arc Welding</td>
<td>3     OR</td>
</tr>
<tr>
<td>WELD 206</td>
<td>Gas Tungsten Arc Welding</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR CERTIFICATE OF ACHIEVEMENT** .................................... 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. 69) or the University Preparation Pathway (p. 65) 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 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 Techn courses offered during the day.

**REQUIRED COURSES – COMPLETE 9 UNITS**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>UNITS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 301</td>
<td>1</td>
<td>Machine Shop 1</td>
</tr>
<tr>
<td>MACH 302</td>
<td>2</td>
<td>Machine Shop 2</td>
</tr>
<tr>
<td>WELD 200</td>
<td>3</td>
<td>Arc &amp; Gas Welding</td>
</tr>
</tbody>
</table>

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

Certificate of Achievement: Maintenance Machinist 2

**EXPECTED STUDENT LEARNING OUTCOMES**

Students who earn a Certificate of Achievement in Maintenance Machinist 2 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 Certificate of Achievement, student must complete the 18 required units and 3 units of electives. This series of courses is intended to meet the needs of those 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 courses offered during the day.

**REQUIRED COURSES – COMPLETE 18 UNITS**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>UNITS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 20</td>
<td>4</td>
<td>Elementary Algebra</td>
</tr>
<tr>
<td>WELD 200</td>
<td>1</td>
<td>Arc &amp; Gas Welding</td>
</tr>
<tr>
<td>WELD 300</td>
<td>2</td>
<td>Intermediate Welding</td>
</tr>
<tr>
<td>WELD 304</td>
<td>2</td>
<td>Gas Metal &amp; Flux Core Welding</td>
</tr>
<tr>
<td>WELD 300</td>
<td>2</td>
<td>Intermediate Welding</td>
</tr>
<tr>
<td>WELD 325</td>
<td>3</td>
<td>Design &amp; Fabrication Process</td>
</tr>
<tr>
<td>WELD 399</td>
<td>2,3</td>
<td>Independent Study</td>
</tr>
</tbody>
</table>

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

**Welding PROGRAM**

Skills Recognition Award: Fabrictor Technician

**EXPECTED STUDENT LEARNING OUTCOMES**

Students who earn a Skills Recognition Award in Fabrictor Technician 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 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 16 UNITS**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>UNITS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 200</td>
<td>1</td>
<td>Arc and Gas Welding</td>
</tr>
<tr>
<td>SM 331</td>
<td>1</td>
<td>Sheet Metal &amp; Installation 1</td>
</tr>
<tr>
<td>WELD 204</td>
<td>2</td>
<td>Gas Metal &amp; Flux Core Welding</td>
</tr>
<tr>
<td>WELD 300</td>
<td>2</td>
<td>Intermediate Welding</td>
</tr>
<tr>
<td>WELD 325</td>
<td>3</td>
<td>Design &amp; Fabrication Process</td>
</tr>
<tr>
<td>WELD 399</td>
<td>2,3</td>
<td>Independent Study</td>
</tr>
</tbody>
</table>

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

Skills Recognition Award: Gas Metal Arc Welding

**EXPECTED STUDENT LEARNING OUTCOMES**

Students who earn a Skills Recognition Award in Gas Metal Arc 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 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 10 UNITS**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>UNITS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 200</td>
<td>1</td>
<td>Arc and Gas Welding</td>
</tr>
<tr>
<td>WELD 300</td>
<td>2</td>
<td>Intermediate Welding</td>
</tr>
<tr>
<td>WELD 204</td>
<td>3</td>
<td>Gas Metal Arc (MIG) and Flux Core Welding (FCAW)</td>
</tr>
<tr>
<td>WELD 399A</td>
<td>3,4</td>
<td>Independent Study</td>
</tr>
</tbody>
</table>

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

**ELIGIBILITY**

- OR
- OR
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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 200</td>
<td>[1]</td>
<td>Arc and Gas Welding</td>
</tr>
<tr>
<td>WELD 300</td>
<td>[2]</td>
<td>Intermediate Welding</td>
</tr>
<tr>
<td>WELD 399</td>
<td>[3]</td>
<td>Shielded Metal Arc Welding (TIG)</td>
</tr>
<tr>
<td>WELD 399A</td>
<td>[2,3]</td>
<td>Independent Study</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR SKILLS RECOGNITION AWARD**: 8

Skills Recognition Award:  
**Gas Tungsten Arc Welding**

**EXPECTED STUDENT LEARNING OUTCOMES**

Students who earn a Skills Recognition Award in Gas Tungsten Arc Welding will be able to:

1. Demonstrate compliance with current welding industry safety and environmental regulations.
2. Perform TIG 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 10 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 200</td>
<td>[1]</td>
<td>Arc and Gas Welding</td>
</tr>
<tr>
<td>WELD 300</td>
<td>[2]</td>
<td>Intermediate Welding</td>
</tr>
<tr>
<td>WELD 399A</td>
<td>[2,3]</td>
<td>Independent Study</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR SKILLS RECOGNITION AWARD**: 10

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 COURSES – COMPLETE 10 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 200</td>
<td>[1]</td>
<td>Arc and Gas Welding</td>
</tr>
<tr>
<td>WELD 300</td>
<td>[2]</td>
<td>Intermediate Welding</td>
</tr>
<tr>
<td>WELD 399A</td>
<td>[2,3]</td>
<td>Independent Study</td>
</tr>
</tbody>
</table>

**TOTAL UNITS FOR SKILLS RECOGNITION AWARD**: 10

Skills Recognition Award:  
**Sheet Metal Fabricator**

**EXPECTED STUDENT LEARNING OUTCOMES**

Students who earn a Skills Recognition Award in Sheet Metal Fabricator 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 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 10 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 200</td>
<td>[1]</td>
<td>Arc and Gas Welding</td>
</tr>
<tr>
<td>SM 331</td>
<td>[1]</td>
<td>Sheet Metal &amp; Installation 1</td>
</tr>
<tr>
<td>SM 332</td>
<td>[2]</td>
<td>Sheet Metal &amp; Installation 2</td>
</tr>
<tr>
<td>WELD 399</td>
<td>[2]</td>
<td>Independent Study</td>
</tr>
</tbody>
</table>

**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. 69) or the University Preparation Pathway (p. 65) which include completion of the requirements below.

**REQUIRED COURSES – COMPLETE 30 UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 211C</td>
<td>[NP]</td>
<td>Machine Tool Technology 1</td>
</tr>
<tr>
<td>SM 331</td>
<td>[2]</td>
<td>Sheet Metal &amp; Installation 2</td>
</tr>
<tr>
<td>WELD 200</td>
<td>[1]</td>
<td>Arc &amp; Gas Welding</td>
</tr>
<tr>
<td>WELD 204</td>
<td>[2]</td>
<td>Gas Metal Arc (MIG) Flux Core Arc (FCAW)</td>
</tr>
<tr>
<td>WELD 300</td>
<td>[2]</td>
<td>Intermediate Welding</td>
</tr>
<tr>
<td>WELD 325</td>
<td>[3]</td>
<td>Design and Fabrication Processes</td>
</tr>
<tr>
<td>WELD 399A</td>
<td>[2,3]</td>
<td>Independent Study/Special Problems</td>
</tr>
<tr>
<td>WELD 399B</td>
<td>[2,3]</td>
<td>Independent Study/Special Problems</td>
</tr>
</tbody>
</table>

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

EDUCATIONAL PROGRAMS IN
GENERAL STUDIES & GENERAL EDUCATION
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 LANGUAGE AND RATIONALITY 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 HEALTH EDUCATION by:
1. Describing the integration of the physiological and psychological human being.
3. Evaluating the impact of daily decisions on life and health.

Certificate of Achievement: IGETC Pattern

To earn a Certificate of Achievement in IGETC, the student must complete the requirements detailed in the IGETC Pattern. Each course must be completed with a grade of C or better. Students who plan to transfer to CSU or UC should consult with a counselor about proper selection of courses and General Education certification.

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.
3. Evaluating the impact of daily decisions on life and health.

General Education

PROGRAM

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 for meaning and to forge aesthetic, moral, social, political and historical judgments.
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.

General Studies

PROGRAM

A.A. Degree: General Studies, Emphasis in Humanities

Expected Learning Outcomes

The Associate of Arts in General Studies with Emphasis provides an opportunity for you to earn an Associate of Arts (AA) degree in a comprehensive area of study. This degree is intended for students who may not be planning to transfer to a university in the near future.

The General Studies degree is intended to provide both breadth and depth of education. Breadth is achieved by completion of the 18-unit MJC-GE Pattern for the Associate’s Degree. Depth is achieved when you complete an additional 18-unit Emphasis in one of four areas: Natural Sciences, Social and Behavioral Sciences, Humanities, or Language and 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.
### 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 77 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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHR 104</td>
<td>Linguistic Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ART 120</td>
<td>Basic Drawing 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 124</td>
<td>Color and Design 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 140</td>
<td>Sculpture 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 160</td>
<td>Appreciation of Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 162</td>
<td>History of Renaissance Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 163</td>
<td>History of Modern Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 164</td>
<td>History of Art 1</td>
<td>3</td>
</tr>
<tr>
<td>ART 165</td>
<td>History of Art 2</td>
<td>3</td>
</tr>
<tr>
<td>ART 168</td>
<td>Survey of Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 169</td>
<td>History of Non-Western Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 170</td>
<td>Basic Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 181 &amp; 182</td>
<td>Basic Photography 1 and Basic Photography 2</td>
<td>1½ &amp; 1½</td>
</tr>
</tbody>
</table>

### CONTINUED

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMGR 201</td>
<td>Animation: A Global View of Art in Motion</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Advanced Composition &amp; Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 112</td>
<td>Introduction to the Novel and Short Story</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 114</td>
<td>Introduction to Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 116</td>
<td>Introduction to Drama</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 131</td>
<td>Introduction to World Literature to 1500</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 132</td>
<td>Introduction to World Literature (1500 to Present)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 135</td>
<td>Survey of American Literature to 1850</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 136</td>
<td>Survey of American Literature: 1850 to the Present</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 137</td>
<td>Survey of English Literature to the 18th Century</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 138</td>
<td>Survey of English Literature: 1700 - Present</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 151</td>
<td>Folklore</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 156</td>
<td>The Bible as Literature: The Hebrew Canon and Inter-testamental Writings</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 157</td>
<td>The Bible as Literature: The New Testament</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 157</td>
<td>Film Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 162</td>
<td>History of Cinema</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 163</td>
<td>Introduction to Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 168</td>
<td>Adolescent Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 169</td>
<td>Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 171</td>
<td>Introduction to African-American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 172</td>
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<td>Intro to Latin American Literature</td>
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<td>ENGL 174</td>
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<td>ENGL 175</td>
<td>Introduction to Women’s Literature</td>
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<td>SPCCM 120</td>
<td>Oral Reading/Interpretation</td>
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<td>SPCCM 122</td>
<td>Introduction to Readers’ Theatre</td>
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</table>
### A.A. Degree: General Studies, Emphasis in Language & Rationality

**ABOUT THIS EMPHASIS**

Courses in language and rationality are those that study English composition, communication, and analytical thinking. Students will develop the principles and applications of language toward logical thought, clear and precise expression, and critical evaluation of communication whatever symbol system the students use.

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 courses.

#### 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

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<td>Agriculture Computer Applications</td>
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<td>CMPSR 264</td>
<td>Publishing on the World Wide Web</td>
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<td>Multimedia on the World Wide Web</td>
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<td>CMPS 103</td>
<td>Symbolic Logic</td>
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<td>CMPS 201</td>
<td>General Computer Literacy</td>
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<td>CMPS 203</td>
<td>Technical Computer Literacy</td>
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<td>CMPS 205</td>
<td>Problem Solving and Programming 1</td>
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<td>CMPS 213</td>
<td>Programming with Visual BASIC</td>
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<td>CMPS 219</td>
<td>Discrete Structures for Computer Science</td>
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<td>CMPS 241</td>
<td>Assembly Language Programming</td>
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<td>CMPS 261</td>
<td>Problem Solving and Programming 2</td>
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<td>CMPS 264</td>
<td>Windows Server OS</td>
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<td>CMPS 275</td>
<td>Database Management Systems</td>
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<td>CMPS 276</td>
<td>Web Database Development</td>
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<tr>
<td>CMPS 291</td>
<td>Windows Programming with Visual C ++</td>
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<td>ENGL 103</td>
<td>Advanced Composition &amp; Critical Thinking</td>
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<td>LBR 100</td>
<td>Research Concepts and Practice</td>
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<td>Plane Geometry</td>
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<td>Algebra with Applications</td>
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<td>Intermediate Algebra</td>
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<td>Mathematical Ideas and Applications</td>
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<td>MATH 103</td>
<td>Structure of Mathematics</td>
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<td>MATH 111</td>
<td>Applied College Algebra</td>
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<td>Pre-Calculus 1</td>
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<td>MATH 130</td>
<td>Finite Mathematics</td>
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<td>Elementary Statistics</td>
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<td>MATH 138</td>
<td>Calculus for Business and Social Sciences</td>
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<td>MATH 171</td>
<td>Calculus: First Course</td>
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<td>CMPS 100</td>
<td>Fundamentals of Public Speaking</td>
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<tr>
<td>CMPS 102</td>
<td>Introduction to Human Communication</td>
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<tr>
<td>CMPS 104</td>
<td>Argumentation</td>
<td>3</td>
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<tr>
<td>CMPS 106</td>
<td>Group &amp; Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>CMPS 107</td>
<td>Introduction to Debate</td>
<td>3</td>
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<tr>
<td>CMPS 110</td>
<td>Persuasion</td>
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<td>SUPR 106</td>
<td>Group &amp; Organizational Communication</td>
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</tbody>
</table>

#### 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 69 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 and complete 6 units in each discipline. Students may not double-count units with General Education courses.

#### EXPECTED LEARNING OUTCOMES

In addition to demonstrating the abilities listed as General Education Student 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

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<th>Course Code</th>
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<td>ANAT 125</td>
<td>Human Anatomy</td>
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<td>ANSC 200</td>
<td>Introduction to Animal Science</td>
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<td>ANTHR 103</td>
<td>Physical Anthropology</td>
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<td>Physical Anthropology Laboratory</td>
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<td>AP 50</td>
<td>Elementary Human Anatomy-Physiology</td>
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<td>AP 150</td>
<td>Integrative Anatomy &amp; Physiology</td>
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<td>ASTRO 141</td>
<td>Introduction to Astrophysics</td>
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<td>Introduction to Modern Astronomy with Lab</td>
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</table>
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. 69) 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.

#### 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. 69) which include completion of the requirements below.

**UNITS IN EMPHASIS**

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<td>BID 115</td>
<td>Genetics, Evolution, and Society</td>
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<td>Biology: A Human Perspective</td>
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<td>Introduction to Marine Biology</td>
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**UNITS IN EMPHASIS**

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<td>ANTH 103</td>
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**Units in Emphasis:** 18
## How to read course descriptions

### PHYSO 101 — INTRODUCTORY HUMAN PHYSIOLOGY

**Course Prefix and Number:** PHYSO 101

**Course Title:** Introductory Human Physiology

**Unit Value:** 5 Units

**Course Description:** Study of body functions, organ system integration, communications, and thermostats at the biochemical, cellular, and systems level. Includes control of symmetry, protein synthesis and cellular metabolism, cellular communications, neural information processing, blood movement and homeostasis; fluid balance, respiration and digestion, reproduction, sensory perception, and control of movements. (A-F Only) Transfer: CSU, UC (CC BIOL 60) (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A) Transfer: CSU, UC.

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

### PLSC 385 — PRUNING

**Course Prefix and Number:** PLSC 385

**Course Title:** Pruning

**Unit Value:** 1 Unit

**Course Description:** Pruning of deciduous fruits, nuts and vines. Care and maintenance of tools and equipment. Prune irregularities, fertilization, and insect control also included. Field trips required. Laboratory: lecture. (A-F Only) Transfer: CSU, UC.

### PHYSO - PLSC

**Course Prefix and Number:** PHYSO 101, PLSC 385

**Course Title:** Introductory Human Physiology, Pruning

**Unit Value:** 6 Units

**Course Description:** Study of body functions, organ system integration, communications, and thermostats at the biochemical, cellular, and systems level. Includes control of symmetry, protein synthesis and cellular metabolism, cellular communications, neural information processing, blood movement and homeostasis; fluid balance, respiration and digestion, reproduction, sensory perception, and control of movements. Pruning of deciduous fruits, nuts and vines. Care and maintenance of tools and equipment. Prune irregularities, fertilization, and insect control also included. Field trips required. Laboratory: lecture. (A-F Only) Transfer: CSU, UC.

### PHYSO 103 — INTRODUCTION TO NEUROSCIENCE

**Course Prefix and Number:** PHYSO 103

**Course Title:** Introduction to Neuroscience

**Unit Value:** 3 Units

**Course Description:** Introduction to the biological basis of behavior. Emphasis on discussions of the nervous system, neurotransmission, neurochemistry, psychopharmacology, as applied to understanding of perceptual processes, psychopathological drugs, movement, regulation of hunger and thirst, sexual behavior, sleep and learning or memory. Language, emotion, mounted and stress, psychotherapy. (A-F Only) Transfer: CSU, UC (CC BIOL 60) (MJC-GE: A) (CSU-GE: B2) (IGETC: 5A) Transfer: CSU, UC.

### PLSC 50 — PREPARATORY PLANT SCIENCE

**Course Prefix and Number:** PLSC 50

**Course Title:** Preparatory Plant Science

**Unit Value:** 3 Units

**Course Description:** Introduction to plant science, including structure, growth processes, propagation, physiology, growth media, biological competition, and pest control. Sections of local, ornamental, and agricultural plants. (A-F or P/NP) Lecture and/or Laboratory.

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

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

**Corequisite:** or **Concurrent if not prior to the listed course:**

**Non degree course**
- (Units do not apply toward degree)
ADJU 144—COMMUNITY AGENCY SERVICE 1 UNIT
54 Lecture hours
Formerly listed as ADJU 145
Prerequisite: Satisfactory completion of ADJU 201.
Corequisite: Concurrent enrollment in ADJU 145.
Analysis of field experiences of students concurrently enrolled in ADJU 145A, 145B, 145C, or 145D. Class time is devoted to sharing and evaluating problems that develop, and ways of resolving them will be sought by class members. Three completions allowed. Field trips may be required. (A-F Only) Lecture. Transfer: (CSU)

ADJU 145—A,B,C,D—COMMUNITY AGENCY SERVICE FIELDWORK 1-4 UNITS
A=18 Discussion hours, B=36 Discussion hours, C=54 Discussion hours, D=72 Discussion hours
Prerequisite: Satisfactory completion of ADJU 201 Concurrent enrollment: ADJU 145
Supervised field experience in a variety of community social agencies. Weekly lab: 75 hours of work experience or 60 hours of volunteerism in a community service/social agency are required for every unit earned each semester. May be repeated up to 16 units in any combination. Discussion. Transfer: CSU

ADJU 201—INTRODUCTION TO ADMINISTRATION OF JUSTICE 3 UNITS
54 Lecture hours
Formerly listed as: ADJU - 201: Intro to Administration of Justice
History and philosophy of the administration of justice in America; its subsystems including their role expectations and interrelationships. Overview of theories to account for crime, punishment, and rehabilitation. Introduction to professional education, training, and ethics in the administration of justice field. Field trips may be required. (A-F Only) Lecture. Transfer: (CSU, UC) (C-ID: AJ 110) General Education. (MUC-GE: B) (CSU-GE: D0)

ADJU 202—PRINCIPLES/PROCEDURES OF JUSTICE SYSTEM 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.
Role and responsibilities of each administration of justice system segment: law enforcement, judicial, corrections. Past, present and future exposure to each sub-system procedure from initial entry to final disposition; relationship each segment maintains with its system members. Field trips may be required. (A-F Only) Lecture. Transfer: (CSU, UC) General Education. (MUC-GE: B)

ADJU 203—CONCEPTS OF CRIMINAL LAW 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201 and satisfactorily complete ADJU 202.
Historical development, philosophy of law and constitutional provisions: definitions, classification of crime and their application to administration of justice system; legal research, case law, methodology and concepts of law as a social force. Field trips might be required. (A-F Only) Transfer: (CSU, UC) General Education. (MUC-GE: B) (CSU-GE: D0) (IGETC: 4I)

ADJU 204—LEGAL ASPECTS OF EVIDENCE 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 202 and satisfactorily complete ADJU 203.
Origin, development, philosophy, and constitutional basis of evidence, constitutional and procedural considerations affecting arrest, search and seizure, kinds of degrees of evidence and rules governing admissibility, judicial decisions interpreting individual rights and case studies. Field trips may be required. (A-F Only) Lecture. Transfer: (CSU)
ADJU 217—SUBSTANCE ABUSE  3 UNITS
54 Lecture Hours,
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201 and satisfactorily complete ADJU 202.
Basic understanding of controlled substances, including identification, physiological effects, testing, and use detection, methods of enforcement and investigation, applicable laws controlling use, treatment processes, and prevention. Field trips are not required. (A-F Only) Transfer: (CSU) General Education: (MJC-GE: B, E) (CSU-GE: D7, E)

ADJU 219—CORRECTIONS FIREARMS TRAINING  1½ UNITS
18 Lecture hours, 36 Lab hours
Prerequisite: Satisfactory completion of ADJU 215.
Limitation on Enrollment: This course is restricted under California Penal Code Section 12021.
 Convicted felons, persons addicted to any narcotic or convicted felons, persons addicted to any narcotic or convicted of any offense involving the violent use of a firearm are not allowed to enroll in the course.
Laws, policies, and ethical considerations with specialized training in weaponry used by correctional agencies. Range firing of rifles, shotguns, and handguns. Students must provide safety glasses and hearing protectors, and ammunition. Course is restricted under state and federal laws. Instructor reserves the right to remove a student from the firing range due to a safety violation. Students may repeat any combination of ADJU 215/216 or 219 for a maximum of 4 completions. Lecture/Laboratory. Field trips may be required. Materials fee required. (A-F Only) Transfer: CSU

ADJU 222—PROFILING TERRORISM  3 UNITS
54 Lecture Hours,
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.
Discussion of prominent theories on terrorism with a focus on domestic and international terrorism threats, and fundamental security issues resulting from terrorism. Analysis of the social-historical origins of terrorism; criminal, legal, and social responses to terrorism; at-risk populations; prevention; and intervention strategies. Field trips are not required. (A-F Only) Transfer: (CSU)

ADJU 223—JUVENILE JUSTICE PROCEDURES  3 UNITS
54 Lecture Hours,
History of juvenile court laws in U.S. Theories of delinquency. California Juvenile Court law and court decisions. Discussion of runaways, and offenses committed by children. Field trips might be required (A-F Only) Transfer: (CSU)

ADJU 234—CRIME CAUSATION  3 UNITS
54 Lecture Hours,
Principal theories commonly utilized in identifying causes of criminality. Emphasis on evidence and logic of certain theoretical positions common to the field of criminology. Field trips are not required. (A-F Only) Transfer: (CSU)

ADJU 235—INTRODUCTION TO CORRECTIONS  3 UNITS
54 Lecture hours

ADJU 236—CORRECTIONAL LAW  3 UNITS
54 Lecture hours
Overview of the Constitutional provisions and definitions of laws relating to the corrections component of the Criminal Justice System. Emphasis on the legal aspects concerning adult offenders and correctional personnel with the Dept. of Corrections, juvenile offenders and correctional personnel with the Youth Authority and diversion agencies. The laws will entail Federal, State, and Local jurisdictions. Field trips required. Lecture. (A-F Only) Transfer: CSU

ADJU 240—DRUG AWARENESS  1½ UNIT
9 Lecture hours
Basic understanding of current drugs of abuse including psychological and physical symptomology, appearance, and social implications. Lecture. (A-F Only) Transfer: CSU

ADJU 242—DOMESTIC VIOLENCE PREVENTION  1½ UNIT
9 Lecture hours

ADJU 243—DOMESTIC VIOLENCE CRISIS INTERVENTION  3 UNITS
54 Lecture Hours,
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.
Domestic violence as a pervasive and significant social issue requiring both prevention and intervention. Social-historical roots of family violence, criminal, legal, and social response to violence, at-risk populations, prevention, and intervention strategies. Field trips are not required. (A-F Only) Transfer: (CSU)

ADJU 349—A,B,C,D WORK EXPERIENCE  1,2,3,4 UNITS
A=18 Lecture hours, B=36 Lecture hours, C=54 Lecture hours, D=72 Lecture hours
Designed for students who wish to combine classroom experience with an expansion of skills or knowledge acquired at a site of employment on a paid or volunteer basis. Work must directly relate to the student’s area of study. Maximum 4 units may be earned per semester. May be repeated to a maximum of 16 units Work Experience credit. (Cooperative General Work Experience is included in the maximum.) Lecture.

ADJU 351—ELEMENTS OF SUPERVISION IN PUBLIC SAFETY  3 UNITS
54 Lecture Hours,
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ADJU 201.
The nature of effective leadership and the functions of supervisors and managers in organizations, with an emphasis on organizations within the criminal justice system. The skills and techniques of effective leadership, management and supervision will be examined and applied in terms of attaining maximum results through teamwork and the cooperative efforts of others. Field trips are not required. (A-F or P/NP)

AG (Agriculture, Vocational & Technical)

Dean: Mark A. Anglin
Division Office: Agriculture, Room 100
Phone: (209) 575-6200
Division website: www.mjc.edu/prospective/programs/agric/index.html
Instructors: David Baggett, Marlies Boyd, Gail Brunley, John Mendes

For degrees and certificates that can be earned in Agriculture: Vocational & Technical, see the Agriculture and Environmental Sciences Division on page 83.
Vocational Agriculture courses are designed to prepare for occupational entry into skilled or semi-professional fields of agriculture. Technical Agriculture courses are designed to prepare for occupational entry into the technical fields of agriculture.

AG 100A, B—LEADERSHIP IN AGRICULTURE  1, 2 UNITS
A=18 Lecture hours, B=18 Lecture hours, 54 Lab hours
Lecture and supervised activities relating to student participation in agricultural competitions, judging contests, livestock exhibitions, recruitment programs, award and scholarship applications, and youth activity planning. Field trips required. Lecture/Leadership activities. Students may not exceed a total of 2 units in AG 100A only. Transfer: CSU MJC Activities.

AG 115—INTRODUCTION TO AGRICULTURAL EDUCATION & CAREERS  1 UNIT
18 Lecture hours
Introduction to educational and agricultural employment opportunities. Includes portfolio and educational plan development and curriculum requirements that pertain to educational goals as they relate to agriculture majors. Assists students in setting goals and developing skills necessary for life-long success in obtaining, maintaining, and advancing in agriculture. Careers: Current events that impact agriculture and society will be discussed. (A-F Only) Lecture. Transfer: (CSU)
General Education: (MJC-GE: Guidance)

AG 120—INTRODUCTION TO AGRICULTURE EDUCATION  2 UNITS
36 Lecture hours
Overview of agricultural education and agricultural education programs from a teaching perspective including goals and purposes; kinds of classes, types of programs, and qualifications essential to successful agriculture teaching. Field trips may be required. (A-F Only) Lecture. Transfer: (CSU)
AG 130——AGRICULTURE EDUCATION EARLY FIELD EXPERIENCE  2 UNITS
18 Lecture hours, 54 Lab hours
Creates awareness of opportunities for prospective agriculture teachers through observation, participation in the field and through analysis of field experiences. Students will be expected to complete 20 hours of observation/field activities. The off-campus activities shall be supervised by the course instructor and shall take place in an approved agriculture department. Field trips required. Lecture/Laboratory. (A-F Only) Transfer: CSU

AG 249——AGRICULTURE INTERNSHIP  2 UNITS
108 Lab hours,
Designed for agriculture majors who wish to combine classroom experience with an expansion of skills or knowledge acquired at an internship site on a paid or volunteer basis. Internship experiences must directly relate to the student’s area of study. Field trips are not required. (A-F Only) Transfer: CSU

AG 280——AGRICULTURAL COMPUTATIONS  3 UNITS
54 Lecture hours
Practical problems in production agriculture, agriculture mechanics, agriculture business, and natural resources. Includes problems in algebra, geometry, money and interest, equipment calibration, metrics, and graphics. (A-F Only) Lecture. Transfer: CSU

AG 285 — AGRICULTURAL COMMUNICATIONS  3 UNITS
54 Lecture hours
Fundamentals of agricultural communication, including written, electronic, graphic, and oral communication methodologies. Field trips are required. (A-F Only) Lecture. Transfer: CSU

AG 305——SUPERVISION IN AGRICULTURE  2 UNITS
18 Lecture hours, 54 Lab hours
Training for student interns/unit managers of MJC agricultural farm facilities in the principles of supervision, demonstrating practical skill application, handling personnel problems, instructing new personnel on job performance, analyzing job efficiency and making management decisions. (Designed for West Campus Student Interns and Cooperative Association of States for Scholarships (CASS) International Students. Lab. May be completed up to four times. (A-F Only)

AG 349 A,B,C,D——WORK EXPERIENCE  1, 2, 3, 4 UNITS
AGRICULTURE—SUPERVISED PRACTICE
A= 54 Lab hours, B= 108 Lab hours, C= 162 Lab hours, D= 210 Lab hours
Corequisite: Enrollment in a minimum of 7 units, which may include Cooperative Vocational Work Experience. Designed for agriculture majors who wish to combine classroom experience with an expansion of skills or knowledge acquired at a site of employment on a paid or volunteer basis. Work must directly relate to the student’s area of study. Maximum of 4 units may be earned per semester. May be repeated to a maximum of 16 units Work Experience credit (Cooperative General Work Experience is included in this maximum.) (A-F Only)

AG 376——BASIC SCIENCE AND LABORATORY TECHNIQUES  3 UNITS
54 Lecture hours
Essential laboratory techniques and basic science principles and information designed to qualify students for service in agriculture at technical levels. Field trips are required. Lecture/Laboratory. (A-F Only) General Education: (MJC-GE A)

AG 390 A,B,C,D——AGRICULTURAL SKILLS TRAINING  ½,1,2,3,4 UNITS
X=27 Lab hours, A= 54 Lab hours, B= 108 Lab hours, C= 162 Lab hours, D=210 Lab hours
Emphasis on developing or upgrading skills of agricultural employees. Field trips are required. Formerly listed as: AGEC - 55: Preparatory Agriculture Computer Applications

AGEC (Agricultural Economics)
Dean: Mark A. Anglin
Division Office: Agriculture, Room 100
Phone: (209) 575-6200
Division website: www.mjc.edu/prospective/programs/agens/index.html
Instructors: Marlies Boyd, Gail Brumley, Bill Hobby, Amanda Schnoor

AGEC 50——SURVEY OF AGRICULTURAL ECONOMICS  3 UNITS
36 Lecture hours, 54 Lab hours
A preparatory course designed to further agricultural business knowledge and prepare for entry level employment and further agricultural business course pursuits. Field trips required. Lecture/Laboratory/Other

AGEC 55——PREPARATORY AGRICULTURE COMPUTER APPLICATIONS  3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as: AGEC - 55: Preparatory Agriculture Computer Applications
Introduction to computer use in the workplace, emphasizing agribusiness situations, use of computer applications software, including word processors, spreadsheets, and databases. Suitable for those with no previous computer experience. (A-F or P/NP) Lecture/Lab

AGEC 200——AGRICULTURAL ACCOUNTING AND ANALYSIS  3 UNITS
54 Lecture hours
Study of the principles of agricultural accounting systems and types of records, how to compute and use measures of earnings and costs of production to improve efficiency in agricultural operations. (A-F Only) Lecture Transfer: CSU

AGEC 208——INTRODUCTION TO INTERNATIONAL BUSINESS  3 UNITS
54 Lecture hours
Also offered as: BUSAD - 208: Introduction to International Business
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 248:
A comprehensive overview of international business. A global perspective of international trade, international marketing, international accounting, the operation of multinational companies, economic theories and forces, international organizations and the political and cultural impact of world trade. Field trips might be required. (A-F or P/NP) Lecture Transfer: CSU

AGEC 209——IMPORT/EXPORT FUNDAMENTALS  3 UNITS
54 Lecture hours
Also offered as: BUSAD - 209: Import/Export Fundamentals
Overview of processes and procedures involved in importing and exporting products and services. Special emphasis on finance and financial documentation. Field trips might be required. (A-F Only) Lecture Transfer: CSU

AGEC 210——ELEMENTS OF AGRICULTURAL ECONOMICS  3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be enrolled in or have satisfactorily completed MATH 70:
The place of agriculture and agribusiness in the economic system; basic economic concepts, and problems of agriculture; supply and marketing problems, factors of production; state and federal agriculture programs affecting agriculture’s economic position. Field trips may be required. (A-F Only) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE B) (CSU-GE D2)

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

AGEC 220——AGRICULTURAL BUSINESS MANAGEMENT  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AGEC 200, AG 285, MATH 70 and one AG production class.
Principles of agricultural management, farm organization and measures of earnings; determining production efficiency, property reports. Study and reorganization of a given farm with application of above principles, term report and field laboratories required. Field trips are required. (A-F Only) Lecture /Lab. Transfer: (CSU)

AGEC 225——AGRICULTURE COMPUTER APPLICATIONS  3 UNITS
54 Lecture hours
Computer use in the agribusiness work place, with emphasis on using software to solve agribusiness accounting problems, record keeping, creating sales presentations, and authoring business reports. Field trips may be required. (A-F Only) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE D2)
AGM 280—AGRICULTURAL SALES AND SERVICE  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete three agriculture courses (preferably two or more agriculture production courses and one or more agribusiness courses).
Introduction to the sales and service professions with emphasis on, but not limited to, the agribusiness sector. Provides both theoretical background and experiential exercises on a variety of sales and service facets including: the sales industry, identifying and understanding personalities, motivating people, sales presentations, prospecting, sales management, and advertising and promotion. Designed to prepare for employment or augment a current sales job. Field trips required. Lecture/Laboratory. (A-F or P/NP) Transfer: CSU

AGM (Agricultural Mechanics)

Dean: Mark A. Anglin
Division Office: Agriculture, Room 100
Phone: (209) 575-6200
Division website: www.mjc.edu/prospective/programs/agens/index.html
Instructors: Steve Amador, Todd Conrado, Bill Hobby, John Mendes, Mike Morales, Dale Pollard, Amanda Schnoor

AGM 145—PARLIAMENTARY PROCEDURE  1 UNIT
18 Lecture hours
Also offered as SPOM 145
Introduction to Parliamentary Procedure. Preparing for and participating in meetings as a member, officer, and chairperson. Rank and use of motions. Two completions allowed. Lecture. (A-F or P/NP) Transfer: CSU

AGM 146—AGRICULTURE, ENVIRONMENT AND SOCIETY  3 UNITS
54 Lecture hours
The sociology of agriculture presented through an examination of relationships between societies and their environments, economics, and agriculture. Emphasis on the analysis of agriculture’s use of technology and the corresponding impact on the environment, economy and society. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D7)

AGM 150—SUSTAINABLE PRODUCTION SYSTEMS  3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to complete more than two agricultural laboratory courses.
Fundamental concepts and processes of sustainable agricultural systems, with emphasis on integrating agricultural activities with ecological principles. Field trips may be required. (A-F Only) Lecture. Transfer: (CSU, UC)

AGM 191X,A,B—AGRICULTURE FIELD STUDIES  ½–2 UNITS
X = 9 Lecture hours, A = 18 Lecture hours, B = 54 Lecture hours
Examination of agriculture principles and methods through extended field studies at selected sites in the United States and abroad. Gain knowledge of and appreciation for the value of agriculture and agriculture education in other states and countries as a means of developing extended agriculture relationships. Course is repeatable, four completions allowed. Field trips are required. Lecture. (A-F or P/NP) Transfer: CSU

AGM 320—EVALUATION OF AGRICULTURAL PRODUCTS  1 UNIT
18 Lecture hours
Evaluation skills in selecting animal, plant, mechanical, and business products. Four completions allowed. Field trips required. Lecture. Materials fee required. (A-F Only)

AGM (Agricultural Mechanics)

Dean: Mark A. Anglin
Division Office: Agriculture, Room 100
Phone: (209) 575-6200
Division website: www.mjc.edu/prospective/programs/agens/index.html

AGM 50—PREPARATION FOR MECHANICAL TECHNOLOGY  3 UNITS
36 Lecture Hours, 54 Lab Hours
Preparation in woodworking, cold metal, forging, plumbing, and welding as related to farm maintenance and repair. Designed for agricultural students who need development in basic mechanical skills. Students are required to have safety glasses. Materials fee required. Field trips might be required. (A-F or P/NP) Transfer: (CSU)

AGM 200—INTRODUCTION TO MECHANICAL TECHNOLOGY  3 UNITS
Also offered as: INTEC 100—Introduction to Mechanical Technology
36 Lecture Hours, 54 Lab Hours
Basics in woodworking, cold metal, electrical wiring, plumbing, masonry and welding as related to agriculture maintenance and repair. Designed for students who seek to develop basic mechanical skills. Students are required to have safety glasses. Materials fee required. Field trips might be required. (A-F Only) Transfer: (CSU)

AGM 210—AGRICULTURAL WELDING  3 UNITS
36 Lecture Hours, 54 Lab Hours,
Prerequisite: Satisfactory completion of AGM 210.
Advanced welding and other metallurgical techniques such as pipe fitting, hard facing, GMAW and GTAW methods. Course work will include equipment selection, setup and operation. Students are required to have safety glasses. Materials fee required. Field trips might be required. (A-F Only) Transfer: (CSU)

AGM 211—ADVANCED AGRICULTURAL WELDING  3 UNITS
36 Lecture Hours, 54 Lab Hours,
Prerequisite: Satisfactory completion of AGM 210.
Advanced welding and other metallurgical techniques such as pipe fitting, hard facing, GMAW and GTAW methods. Course work will include equipment selection, setup and operation. Students are required to have safety glasses. Materials fee required. Field trips might be required. (A-F Only) Transfer: (CSU)

AGM 212—MECHANICAL SYSTEMS DESIGN & EVALUATION 1  3 UNITS
36 Lecture hours, 54 Lab hours
Introduction to elements of agriculture mechanical system design and evaluation. Mechanical systems include fluid power and mechanical drive systems, structural design as well as development of evaluation procedures to ensure optimum performance. Introduction to computer evaluation and 3D modeling software will also be included. May be completed up to 2 times. Lecture/Laboratory. (A-F Only) Transfer: CSU

AGM 213—MECHANICAL SYSTEMS DESIGN & EVALUATION 2  3 UNITS
36 Lecture hours, 54 Lab hours
Advanced elements of agriculture mechanical system design and evaluation. Emphasis will be placed on mechanical and electronic data acquisition and evaluation of performance. The use of data logging equipment and computer analysis will be included. May be completed up to 2 times. Lecture/Laboratory. (A-F Only) Transfer: CSU

AGM 214—EQUIPMENT SERVICE AND SAFETY  1 UNITS
9.00 Lecture Hours, 27 Lab Hours,
Safe tractor, forkift, and machinery operation, service and key safety practices found in shops. Safe handling of chemicals used in farming and fire safety. A job skills course for students involved in farming practices on college property. Field trips are required. (A-F Only) Transfer: (CSU)

AGM 215—MACHINERY MANAGEMENT  3 UNITS
36 Lecture Hours, 54 Lab Hours,
Designed for future and current equipment managers/owners to understand the selection, maintenance, and replacement of tractors and machinery, used in the agriculture, on-highway truck, and heavy equipment industries. Assessing needs and developing sound management practices for modern equipment operators. A focus on practical knowledge and “hands-on” skills is a priority. Materials fee required. Field trips are required. (A-F Only) Transfer: (CSU)

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

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED: NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
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</table>

**CURRICULUM CHANGES "IMPACT" PROOF**

**INACTIVATED**

**NEW/MODIFIED**

**PENDING 01/22 or NEEDS FURTHER IO REVIEW**
ANSC (Animal Science)

Dean: Mark A. Anglin
Division Office: Science Building, Room 100
Phone: (209) 575-6200
Division website: www.mjc.edu/current/programs/divdeps/sme/index.html
Instructors: Marlies Boyl, Bill Hobby, John Mendes, Amanda Schnoor

ANSC 125—HUMAN ANATOMY  5 UNITS
36 Lecture hours, 54 Lab hours, 18 Discussion hours
Prerequisite: Satisfactory completion of BIO 116 or BIO 111 or BIO 101.
Study of human body structures including organ, tissue and cellular interrelationships. Involves extensive use of models, specimens, histological material, and dissection. Cadaver materials and demonstrations are used. Intended for students entering the health professions. Field trips may be required. (A-F or P/NP) Lecture /Lab /Discussion. Transfer: (CSU, UC) (CE BIOL 10) (ANAT 125+PHYS 101=CC BIO 10 + BIO 60) General Education: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, SC)

ANSC 180A,B,—INTRODUCTION TO TUTORING ANATOMY  1 - 2 UNITS
A = 9 Lecture hours, 27 Lab hours B = 18 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of ANAT 125.
Fundamental skills of tutoring in the anatomy lab. Strategies for tutoring students enrolled in ANAT 125 will be learned. Specific focus will be on techniques for identifying microscopic and macroscopic structures in the anatomy lab. Intended for students selected as tutors for the ANAT 125 lab. Two completions allowed. (A-F or P/NP) Lecture /Lab Lecture /Lab. Transfer: (CSU)

ANSC 200—INTRODUCTION TO ANIMAL SCIENCE  3 UNITS
54 Lecture hours
A scientific approach to the livestock industry encompassing aspects of animal anatomy, physiology, nutrition, genetics and epidemiology. Emphasis on the origin, characteristics, adaptations and contributions of livestock to the modern agriculture industry. Field trips may be required. (A-F Only) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: A) (CSU-GE: B2) (IGETC: 5B)

ANSC 201—BEEF CATTLE SCIENCE  3 UNITS
36 Lecture hours, 54 Lab hours
A study of the principles and practices of purebred and commercial beef cattle production throughout California, the United States, and the world. Emphasis to be placed on importance of breeds, breeding principles, selection, nutrition, environmental management, health, marketing and record keeping to ensure scientifically-based management decisions and consumer product acceptance as applied to beef cattle. Field trips are required. (A-F Only) Lecture /Lab. Transfer: (CSU, UC)

ANSC 202—SWINE SCIENCE  3 UNITS
36 Lecture hours, 54 Lab hours
A study of the principles and practices of purebred and commercial pork production throughout California, the United States, and the world. Emphasis to be placed on importance of breeds, breeding principles, selection, nutrition, environmental management, health, marketing and record keeping to ensure scientifically-based management decisions and consumer product acceptance. Field trips are required. (A-F Only) Lecture /Lab. Transfer: (CSU, UC)

ANSC 203—SHEEP SCIENCE  3 UNITS
36 Lecture hours, 54 Lab hours
A study of the sheep industry including management of commercial, purebred, and small farm flocks; selecting, feeding, breeding and basic care of ewes and lambs plus marketing of lambs and wool. Field trips are required. (A-F Only) Lecture /Lab. Transfer: (CSU, UC)

ANSC 210—LIVESTOCK SELECTION AND EVALUATION  3 UNITS
54 Lecture hours
Detailed analysis of various visual and physical methods of appraising beef, sheep, swine and horses concerning functional and economic value. Written and oral summaries of evaluation will be required. Specific reference will be made to performance data and factors determining carcass value. Lecture/Laboratory/required attendance at judging contests arranged. Two completions allowed. (A-F Only) Transfer: (CSU, UC)

ANSC 211—INTRODUCTION TO MEAT SCIENCE  3 UNITS
36 Lecture hours, 54 Lab hours
An introductory course to the meat industry with a special emphasis on meat products and value-added meat processing techniques. Concepts on food safety and sanitation, grading and inspection along with preservation and marketing strategies to meet current consumer demands. Field trips required. (A-F Only) Lecture/Lab. Transfer: (CSU, UC)

ANSC 212—ADVANCED LIVESTOCK SELECTION AND CARCASS EVALUATION  3 UNITS
18 Lecture hours, 108 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ANSC 210. Advanced study of animal conformation as related to its various functions: Evaluation of beef, sheep and swine species using performance and carcass data as well as live animal observation. Oral interpretation of these evaluative criteria. Formal reasoning presentations required. Two completions allowed. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU, UC)

ANSC 214—LIVESTOCK FEEDING AND NUTRITION  3 UNITS
36 Lecture hours, 54 Lab hours
The fundamentals of digestion and absorption in both ruminants and non ruminants are discussed. The nutritive value of feeds as they relate to the formulation of livestock rations will be emphasized, including by-product feeding. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU, UC)

ANSC 215—ANIMAL HEALTH AND SANITATION  3 UNITS
36 Lecture Hours, 54 Lab Hours,
Common livestock diseases and fundamentals of immunity. Includes coverage of the livestock worker’s role in promoting animal health and the foundation of disease control programs. Field trips are required. (A-F Only) Transfer: (CSU, UC)
ANSC 216 — LIVESTOCK BREEDING AND SELECTION  3 UNITS
36 Lecture hours, 54 Lab hours
Anatomy and physiology of male and female reproductive systems, endocrine system, and problems affecting reproductive efficiency; fertilization, gestation, and parturition. Principles of heredity as applied to livestock breeding and improvement; systems of breeding; environmental factors affecting reproduction and performance. Livestock selection programs based on performance and progeny. Field laboratories including some on Saturdays required. Lecture/Laboratory. (A-F Only) Transfer: (CSU, UC)

ANSC 217 — ADVANCED BREEDING & ARTIFICIAL INSEMINATION  4 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as: ANSC 217: Advanced Breeding & Artificial Insemination Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ANSC 201 and satisfactorily complete ANSC 220 and (satisfactorily complete ANSC 216 or satisfactorily complete ANSC 226).
Advanced study and practical application of breeding principles and artificial insemination of farm animals; the collection, evaluation, and handling of semen. Nutritional level and sanitation practices affecting reproductive efficiency. Public relations and responsibilities of the technician and the management. Field trips are required. (A-F Only) Lecture /Lab. Transfer: (CSU, UC)

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

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

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

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

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

ANSC 227 — ADVANCED DAIRY CATTLE SELECTION & EVALUATION  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have completed the ANSC 220, ANSC 221 and/or completed another class in livestock evaluation. Advanced study of dairy conformation as related to the function of milk production. Evaluation of dairy cattle using production data, pedigrees and live animal evaluation. Particular emphasis will be placed on linear classification and selective mating. Oral interpretation of these evaluative criteria and formal reasoning presentations will be required. Evaluation of milk and milk products will be required as well. Two completions allowed. Field trips are required. (A-F Only) Lecture/Lab. Transfer: CSU

ANSC 228 — DAIRY MANAGEMENT  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ANSC 220 and satisfactorily complete ANSC 224 and satisfactorily complete ANEC 200.
Economics of dairying, milk production and marketing and their relationship to income; computing production costs; analyzing dairy enterprises; business planning; farm selection; management problems relating to feeding, labor, replacements, cow comfort, breeding, work simplification and record keeping. Term problem and field laboratories required. Field trips are required. (A-F Only) Lecture /Lab. Transfer: (CSU)

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

ANSC 232 — AVIAN PRACTICES  3 UNITS
36 Lecture hours, 54 Lab hours
Practices in avian management including breeders, fayers and layers; incubating, brooding, and rearing of chicks; feed preparation; recordkeeping, processing, and marketing of avian products. Specific work with game birds and non-commercial species of fowl. Field trips are required. (A-F Only) Lecture /Lab. Transfer: (CSU, UC)

ANSC 235 — POULTRY DISEASES AND HOUSING  3 UNITS
36 Lecture hours, 54 Lab hours
Anatomy and physiology of poultry; diagnosis, treatment, and control of disease; biosecurity; sanitation; types of housing and equipment; planning housing, and equipment needs; vaccination schedules. Students will conduct a research project. Field trips are required. (A-F Only) Lecture / Lab. Transfer: (CSU)

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

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

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

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

ANSC 243 — EQUINE FITTING AND SHOWING  2 UNITS
27 Lecture hours, 27 Lab hours
Formerly titled Horse Fitting and Showing
Principles of selection, feeding, fitting and presentation of horses for show. Field trips required. Three completions allowed. Lecture/Lab. (A-F Only) Transfer: CSU

ANSC 244 — DAIRY FITTING AND SHOWING  2 UNITS
27 Lecture hours, 27 Lab hours
Principles of selection, feeding, fitting and presentation of dairy animals for sales and shows. Three completions allowed. Field trips may be required. (A-F Only) Lecture /Lab. Transfer: CSU

ANSC 245 — MEAT GOAT FITTING AND SHOWING  2 UNITS
27 Lecture hours, 27 Lab hours
Principles of selection, feeding, fitting and presentation of meat goats for show. Field trips may be required. Three completions allowed. Lecture/Lab. (A-F Only) Transfer: CSU

COURSES OFFERED

INACTIVATED
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<th>COURSE NUMBER</th>
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| ANSC 250      | VETERINARY PHYSIOLOGY, ANATOMY, & TERMINOLOGY   | 3 UNITS     | 54 Lecture hours  
Formerly listed as: ANSC - 250: Veterinary Physiology, Anatomy & Terminology  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.  
Commonly used terminology and biological concepts used in veterinary medicine. Includes study of basic normal anatomy and physiology (in both large and small animals) in a body systems format, along with related vocabulary and spelling. Commonly used veterinary acronyms and abbreviations are woven throughout the course where relevant. (A-F or P/NP) Lecture. Transfer: (CSU) |
| ANSC 251      | VETERINARY PHARMACY PROCEDURES 2 UNITS          | 3 UNITS     | 36 Lecture hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AG 280.  
Includes discussion of veterinary pharmacology and common items dispensed with emphasis on proper labeling and dispensing instructions. (A-F or P/NP) Lecture. Transfer: (CSU) |
| ANSC 252      | VETERINARY EQUIPMENT: OPERATION, INSTRUMENTATION, AND SAFETY | 3 UNITS     | 54 Lecture hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AG 50.  
Introduction to diagnostic imaging equipment used in veterinary practices.  
Safe operation of radiographic equipment. Developing trouble-shooting and reading radiographs.  
Use of ultrasound equipment. Use of gas anesthesia equipment – safety and proper procedure.  
Field trips are required. (A-F or P/NP) Lecture. Transfer: (CSU) |
| ANSC 253      | VETERINARY LABORATORY PROCEDURES                | 1 UNIT      | 18 Lecture hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.  
Introduction to manual and automated veterinary lab techniques and procedures, including work with blood, urine, fecal and skin samples. (A-F or P/NP) Lecture. Transfer: (CSU) |
| ANSC 254      | VETERINARY MEDICAL OFFICE PROCEDURES            | 2 UNITS     | 36 Lecture hours  
Formerly listed as: ANSC - 254: Vet Medical Office Procedures  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.  
Customer service, medical communication skills, office organization, scheduling, emergency recognition and management, stress management, preventative health programs, and medical record-keeping. Field trips may be required. (A-F Only) Lecture. Transfer: (CSU) |
| ANSC 255      | PREPARATION FOR VETERINARY SURGICAL AND DENTAL ASSISTANCE | 3 UNITS     | 54 Lecture hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.  
Veterinary Technician preparation for surgery, surgery assistance, surgical and dental instruments and packs, anesthesia induction, monitoring and anesthetic machine maintenance, anatomy of the mouth and dental arcade, dental prophylaxis and extractions. (A-F or P/NP) Lecture. Transfer: (CSU) |
| ANSC 256      | VETERINARY ASSISTANCE & NURSING: EMERGENCY PROCEDURES | 1 UNIT      | 18 Lecture hours  
Formerly listed as: ANSC - 256: Vet Assistance & Nursing Emer Procedure  
Emphasis on emergency procedures, monitoring vital signs, taking steps to stabilize patients. Basic nutritional requirements for pets, species requirements, nutritional disorders, feeding methods.  
Basic animal behavior, detecting signs of stress and identifying causes of behavioral problems. (A-F or P/NP) Lecture. Transfer: (CSU) |
| ANSC 257      | VETERINARY ASSISTANCE AND NURSING: ANIMAL HANDLING | 2 UNITS     | 36 Lecture hours  
Basic veterinary nursing procedures including animal restraint, administration of medication, catheterization, vaccination techniques, bathing, bandaging and performing minor medical procedures. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU) |
| ANSC 258      | BEGINNING HORSEMANSHIP                          | 3 UNITS     | 36 Lecture hours, 54 Lab hours  
Introduction to riding, saddling, grooming and bridling. Students will acquire basic knowledge of equipment and safety procedures. Course topics include use of riding aids and transitions. May be completed up to 4 times. (A-F Only) Lecture/Lab. Transfer: CSU |
| ANSC 259      | PACK ANIMAL - WALK/RIDE                         | 2 UNITS     | 18 Lecture hours, 54 Lab hours  
Selection, care, and use of pack animals and equipment. Topics will include safe packing trips and understanding environmental concerns on the trail. Having a horse is not a requirement for this class. Field trips may be required. (A-F Only) Lecture/Lab. Transfer: CSU |
| ANSC 260      | ADVANCED HORSEMANSHIP                           | 3 UNITS     | 36 Lecture hours, 54 Lab hours  
Introduction to riding, saddling, grooming and bridling. Students will acquire basic knowledge of equipment and safety procedures. Course topics include use of riding aids and transitions. May be completed up to 4 times. (A-F Only) Lecture/Lab. Transfer: CSU |
| ANSC 265      | INTRODUCTION TO COLT TRAINING                   | 3 UNITS     | 36 Lecture hours, 54 Lab hours  
Basic principles involved in handling and training the young horse. Course includes groundwork, trailering, starting a colt, advancing the green horse, and problem-solving. (A-F Only) Lecture/Lab. Transfer: CSU |
| ANSC 379      | SMALL ANIMAL MEDICINE AND BEHAVIOR              | 2 UNITS     | 36 Lecture hours  
Formerly listed as ANSC 377 and ANSC 378  
Basic introductory course in normal animal behavior of dogs and cats. The diagnosis and treatment of some of the most common pet behavior problems. Includes history of diseases and parasites in the area; management techniques to prevent diseases and parasites; state and federal regulatory services. Lecture. (A-F Only). |

**ANTHR (Anthropology)**

Dean (Interim): John Williams  
Division Office: Founders Hall 100  
Phone: (209) 575-6129  
Division website: mjc.edu/prospective/programs/bbss/  
Instructors: Debra Bolter, Susan Kerr, James Todd

<table>
<thead>
<tr>
<th>COURSE NUMBER</th>
<th>COURSE NAME</th>
<th>UNITS</th>
<th>DESCRIPTION</th>
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| ANTH 101      | PHYSICAL ANTHROPOLOGY                           | 3 UNITS     | 54 Lecture hours  
Introduction to human evolution. The evidence for human biological and behavioral adaptations is examined. Issues and topics will include the principles of genetics and evolution, human variation, comparative primate anatomy/behavior and an assessment of the human fossil record. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC)(CC ANTHR 1) General Education: (MJC-GE: A)(CSU-GE: B2, D1)(IGETC: 5B) |
| ANTH 102      | CULTURAL ANTHROPOLOGY                           | 3 UNITS     | 54 Lecture hours  
Introduction to the methods, theories and insights of cultural anthropology and the application of these to life in a multicultural society. Topics include, but are not limited to: the research and analysis of culture and cultural processes; cross-cultural comparisons of subsistence patterns, economics, religion, kinship, gender, language, sexuality and political organization; and, cultural change in a globalized world. Recommended for people who travel internationally. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC)(CC ANTHR 2) General Education: (MJC-GE: B)(CSU-GE: D1)(IGETC: 4A) |
ANTHR 104—LINGUISTIC ANTHROPOLOGY  
54 Lecture hours  
Formerly listed as ANTHR 104 - Language, Culture and Communication  
Recommended for Success: Before enrolling in this course, students are strongly advised to complete ENGL 101 with a minimum grade of C.  
An introduction to the anthropological study of language. Topics include: a survey of linguistics, including phonetics, phonology, morphology, syntax and semantics; the ethnography of communication, classification and cultural meaning; language, literacy and writing; and, anthropological approaches to the language emergence and change. Field trips may be required. (A-F or P/NP) Lecture.  
Transfer: (CSU, UC) General Education. (MJC-GE: B; CJ-(CSU-GE: C2, D1)(IGETC: 3B, 4A)  

ANTHR 105—PHYSICAL ANTHROPOLOGY LABORATORY  
1 UNIT  
54 Lab hours  
Corequisite: or satisfactory completion of Concurrent enrollment in or satisfactory completion of ANTHR 101.  
Laboratory investigation of methods and techniques of human evolution and variation, including use of the scientific method, anthropometrics, and an analysis of the developmental and functional morphology of primates. Lines of evidence examined will include the study of population genetics, comparative anatomy and behavior of primates, forensic anthropology, human fossils and their reconstruction. Field trips may be required. (A-F Only) Lab.  

ANTHR 107—FORENSIC ANTHROPOLOGY INTRODUCTION  
54 Lecture hours  
Introduction to forensic anthropology as an applied field of physical anthropology, the methods of solving crimes with anthropological data and applying techniques designed for the analysis of human skeletal remains (personal identification, the determination of population, cause of death, DNA analysis, and issues of collection of physical evidence). Interaction between anthropologists and law enforcement agencies and human rights issues. Field trips may be required. (A-F or P/NP) Lecture.  
Transfer: CSU  

ANTHR 130—ARCHAEOLOGY & CULTURAL PREHISTORY  
3 UNITS  
54 Lecture hours  
An introduction to anthropological archaeology including concepts, theories, and methods employed by archaeologists in reconstructing past life ways of humans. Topics include history and interdisciplinary nature of archaeological research; data acquisition, analysis and interpretation with a discussion of applicable data and models; cultural resource management; selected cultural sequences. Field trips may be required. (A-F or P/NP) Lecture.  
Transfer: (CSU, UC) General Education. (MJC-GE: B)(CSU-GE: D1)(IGETC: 4A)  

ANTHR 140—MAGIC, WITCHCRAFT, AND RELIGION  
3 UNITS  
54 Lecture hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to complete ENGL 101 with minimum grade of C.  
A cross-cultural study of the forms, functions and politics of supernatural beliefs and associated rituals in a diverse world. Emphasis on investigating belief systems and rituals within particular cultural contexts, including their emergence and the effect of their practice. Additional emphasis is on broad ethnographic comparison, to derive insight into the power and cultural work of religious and supernatural frameworks in various societies. Religious and supernatural worlds are also analyzed for their local and global connections with other Cultural institutions, movements, forms, politics, and processes. Field trips may be required. (A-F or P/NP) Lecture.  
Transfer: (CSU, UC) General Education. (MJC-GE: B)(CSU-GE: D1)(IGETC: 4A)  

ANTHR 150—NATIVE PEOPLE OF NORTH AMERICA  
3 UNITS  
54 Lecture hours  
Introductory survey of Native North Americans. Protohistory will be examined, with emphasis on historic and contemporary culture groups and their politics, economics, and religions. The impact of non-Native peoples on indigenous cultures will be explored. Field trips may be required. (A-F or P/NP) Lecture.  
Transfer: (CSU, UC)(CC ANTHR 115) General Education. (MJC-GE: B)(CSU-GE: D1)(IGETC: 4A)  

ANTHR 174—ANTHROPOLOGY SUMMER FIELD STUDIES  
3 UNITS  
54 Lecture hours  
Application of principles of anthropology through extended field studies at selected sites. Skills developed in cultural field studies, ethnographic data collection, archaeological artifact and site identification. Requires ability to work and study under rigorous conditions. Two completions allowed. Field trips are required. (A-F or P/NP) Lecture.  
Transfer: CSU  

AP (Anatomy & Physiology)  
Dean: Brian Sanders  
Division Office: Science Building, Room 126  
Phone: (209) 575-6173  
Division website: www.mjc.edu/current/programs/divdeps/sme/  
Instructors: David Ward, Michele Monloux, Pamela Upton, Robert Droual, Sandra Uyeshiro  

AP 50—ELEMENTARY HUMAN ANATOMY-PHYSIOLOGY  
3 UNITS  
54 Lecture hours  
Introduction to the structure and function of the human body, basic terminology, cell biology, and the organ systems. Designed as a preliminary course for allied health students, but open to all students. (A-F or P/NP) Lecture.  
General Education: (MJC-GE: A1) (CC BIOL 150)  

AP 150—INTEGRATIVE ANATOMY AND PHYSIOLOGY  
5 UNITS  
54 Lecture hours, 54 Lab hours, 18 Discussion hours  
Prerequisite: Satisfactory completion of BIO 116 or BIO 101 or BIO 111.  
An intense one semester study of the general structure and function of the human body with an emphasis on integrative functions of the organ systems. Includes organ, tissue and cellular interrelationships; cellular communication, blood movement and hemostasis, fluid balance, respiration; digestion, and reproduction. Intended for students entering health professions that accept a one semester course. (A-F or P/NP) Lecture /Lab /Discussion.  
Transfer: (CSU, UC) General Education. (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: SB, SC)  

ART  
Dean: Michael Sundquist  
Division Office: Performing and Media Arts Center, Room 205  
Phone: (209) 575-6081  
Division website: www.mjc.edu/arts  
Instructors: Deborah Brayman, Doug Smith, Paul Berger, Richard Serros, Rob Stevenson, Tom Duchscher  

ART 102—INTRODUCTION TO COMPUTER GRAPHIC  
3 UNITS  
Also offered as: CMPGR - 202: Introduction to Computer Graphics  
36 Lecture Hours, 54 Lab Hours,  
Introduction to computer graphics using various applications and tools. Topics explored include but are not limited to: original image creation, photography editing, scanning, printing, two-dimensional animation, sound, digitizing pens, mouse, and digital cameras. Materials fee required.  
Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation. (MJC. Activities) General Education. (CSU-GE: C1)  

ART 103—APPLIED COMPUTER GRAPHICS  
3 UNITS  
36 Lecture hours, 54 Lab hours  
Also offered as CMPGR 213  
Recommended for Success: Satisfactory completion of ART 102/CMPGR 202  
Formerly listed as Microcomputer Graphics.  
Concepts and techniques in computer graphics as related to fine and applied art applications. Field trips required. Materials fee required. Lecture/Laboratory.  
Transfer: CSU  

ART 108—CERAMICS  
1 3 UNITS  
27 Lecture Hours, 81 Lab Hours,  
Techniques of elementary clay construction and ornamentation, introduction to throwing techniques. Materials fee required.  
Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation. (MJC. Activities)  

ART 109—CERAMICS  
2 3 UNITS  
27 Lecture Hours, 81 Lab Hours,  
Prerequisite: Satisfactory completion of ART 108.  
Hand building and pottery construction. Emphasis on throwing, form, and design. Materials fee required.  
Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation. (MJC. Activities)  

CURRICULUM CHANGES "IMPACT" PROOF  
INACTIVATED • NEW/MODIFIED • PENDING 01/22 or NEEDS FURTHER IO REVIEW  

203
ART 110 — CERAMICS  3 3 UNITS  
27 Lecture Hours, 81 Lab Hours,  
Prerequisite: Satisfactory completion of ART 109.  
Hand building, throwing techniques, and surface decoration, experiments in clay bodies, glazes and loading and unloading of kiln. Materials fee required. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C1)  

ART 119 — COMPUTER GRAPHICS PORTFOLIO REVIEW  1 UNIT  
18 Lecture hours, 36 Lab hours  
Also offered as CMPR 219  
Prerequisite: This course follows the completed courses of the Computer Graphics majors/  
certificate core requirements.  
Prepares the student majoring or receiving a certificate in Computer Graphics with the necessary  
visual and business skills to develop a portfolio, emphasizes the creative and applied business  
needs for individuals entering the professional Field of Computer Graphics. Field trips required.  
Lecture/Laboratory. (A-F Only) Transfer: CSU  

ART 120 — BASIC DRAWING  1 3 UNITS  
27 Lecture Hours, 81 Lab Hours,  
An introductory course in techniques used in representing form, light and shadow, texture, perspective, composition, and expression using various drawing media. Field trips might be required.  
(A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C1)  

ART 121 — BASIC DRAWING 2  3 UNITS  
27 Lecture Hours, 81 Lab hours  
Prerequisite: Satisfactory completion of ART 120.  
Further exploration of various drawing materials and techniques. Emphasis on composition and development of a personal approach to drawing. Field trips may be required.  
(A-F or P/NP) Lecture/Lab. MJC Activities. Transfer: (CSU, UC)  

ART 123 — FIGURE DRAWING  3 UNITS  
27 Lecture Hours, 81 Lab hours  
Prerequisite: Satisfactory completion of ART 120.  
Fundamentals of art anatomy and representation of the human figure. Drawing of both the nude and draped figure in various media. Four completions allowed. Field trips may be required.  
(A-F or P/NP) Lecture/Lab. MJC Activities. Transfer: (CSU, UC) (CC ART 9A)  

ART 124 — COLOR AND DESIGN 1  3 UNITS  
27 Lecture Hours, 81 Lab hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 120 with a minimum grade of C or better or previous drawing experience.  
Design principles and color theory. Problems in two-dimensional form using various media. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) (CC ART 100) General Education: (MJC-GE:C)  

ART 125 — COLOR AND 3-D FOUNDATION DESIGN  3 UNITS  
27 Lecture Hours, 81 Lab hours  
Formerly listed as: ART — 125: Color and Design 1  
Prerequisite: Satisfactory completion of ART 124.  
Introduction to the concepts and applications related to three-dimensional design and spatial composition, including the study of the elements and organizing principles of design as they apply to three dimensional space and form. Development of a visual vocabulary for creative expression through lecture presentations and use of appropriate materials for non-representational three-dimensional studio projects. Field trips may be required. (A-F or P/NP) Lecture /Lab MJC Activities. Transfer: (CSU, UC)  

ART 129 — FIGURE DRAWING 2  3 UNITS  
27 Lecture Hours, 81 Lab Hours,  
Prerequisite: Satisfactory completion of ART 123.  
Fundamentals of art anatomy and representation of the human figure. Drawing of both the nude and draped figure in various media. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation. (MJC Activities)  

ART 140 — SCULPTURE 1  3 UNITS  
27 Lecture Hours, 81 Lab hours  
Study of form, structure, and three-dimensional design as related to sculpture using various  
materials such as stone, plaster, clay, plastics, and metals. Materials Fee Required. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education: (MJC-GE:C) (CSU-GE: C1)  

ART 141 — SCULPTURE 2  3 UNITS  
27 Lecture hours, 81 Lab hours  
Prerequisite: Satisfactory completion of ART 140.  
Continuation of ART 140, in-depth realization of sculpture in both concept and craftsmanship.  
Materials Fee Required. Field trips may be required. (A-F or P/NP) Lecture/Lab. MJC Activities. Transfer: (CSU, UC)  

ART 142 — SCULPTURE 3  3 UNITS  
27 Lecture hours, 81 Lab hours  
Prerequisite: Satisfactory completion of ART 141.  
Continuation of ART 141 with an emphasis on experimentation and development of personal expression applied to sculptural problems. Materials Fee Required. Field trips may be required. (A-F or P/NP) Lecture/Lab. MJC Activities. Transfer: (CSU, UC)  

ART 144 — WATERCOLOR PAINTING 1  3 UNITS  
27 Lecture hours, 81 Lab hours  
Prerequisite: Satisfactory completion of ART 120 or ART 124.  
Theory and practice of transparent watercolor painting using still life and landscape subject matter. Traditional and experimental techniques will be used. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture /Lab. MJC Activities. Transfer: (CSU, UC) (CC ART 23A)  

ART 145 — WATERCOLOR PAINTING 2  3 UNITS  
27 Lecture hours, 81 Lab hours  
Prerequisite: Satisfactory completion of ART 144.  
A continuation of the concepts and skills developed in ART 144. Emphasis is placed upon experimentation and on the development of a personal painting style. Field trips may be required. (A-F or P/NP) Lecture/Lab. MJC Activities. Transfer: (CSU, UC) (CC ART 23B)  

ART 146 — MIXED MEDIA PAINTING  3 UNITS  
27 Lecture Hours, 81 Lab Hours,  
Prerequisite: Satisfactory completion of ART 120 or ART 124.  
Theory and practice of acrylic or oil painting with an emphasis on experimental techniques and different mixed mediums. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture/Lab. MJC Activities. Transfer: (CSU, UC) (CC ART 25)  

ART 147 — PAINTING 1 (IN ACRYLIC)  3 UNITS  
27 Lecture Hours, 81 Lab Hours,  
Prerequisite: Satisfactory completion of ART 120 or ART 124.  
Introduction to acrylic painting, basic techniques and stylistic approaches. Emphasis on developing form through color. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture /Lab. MJC Activities. Transfer: (CSU, UC)  

ART 148 — PAINTING 1 (IN OIL)  3 UNITS  
27 Lecture Hours, 81 Lab Hours,  
Prerequisite: Satisfactory completion of ART 120 or ART 124.  
Introduction to oil painting, basic techniques and stylistic approaches. Emphasis on developing form through color. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture /Lab. MJC Activities. Transfer: (CSU, UC) (CC ART 21A)  

ART 149 — PAINTING 2  3 UNITS  
27 Lecture Hours, 81 Lab Hours,  
Prerequisite: Satisfactory completion of ART 147 or ART 148.  
Continued work in oil and acrylic painting, basic techniques and stylistic approaches. Emphasis on developing form through color. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture /Lab. MJC Activities. Transfer: (CSU, UC) (CC ART 21B)  

ART 150 — GALLERY OPERATION AND MANAGEMENT  3 UNITS  
27 Lecture Hours, 81 Lab Hours,  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 160 or satisfactorily complete ART 164 or satisfactorily complete ART 165.  
Introduction to the various aspects of operation and management of an art gallery which entails exhibition organization, hanging, publicity, curation, and jurying. Four completions allowed. Field trips are required. (A-F or P/NP) Lecture /Lab. MJC Activities. Transfer: (CSU, UC) (CC ART 21B)  

ART 160 — APPRECIATION OF ART  3 UNITS  
54 Lecture hours  
Introductory art appreciation for the general student. Illustrated lectures in painting, sculpture, architecture and design. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE:C) (CSU-GE:C1) (IGETC: 3A)
### COURSES OFFERED

**ART 162 — HISTORY OF RENAISSANCE ART**  
3 UNITS  
54 Lecture hours  
Analysis of the European 14th-16th century drawing, painting, sculpture, and architecture, with an emphasis on the Italian High Renaissance masters. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) General Education. (MJC-GE:C) (CSU-GE:C1) (IGETC:3A)

**ART 163 — HISTORY OF MODERN ART**  
3 UNITS  
54 Lecture hours  
Analysis of the arts through the study of painting, sculpture, architecture, and the history of Europe and the Americas from c. 1800 to the present. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) General Education. (MJC-GE:C) (CSU-GE:C1) (IGETC:3A)

**ART 164 — HISTORY OF ART 1**  
3 UNITS  
54 Lecture Hours  
Analysis of great art epochs through study of paintings, sculpture, architecture and history from pre-historic times to the end of the Middle Ages. Field trips might be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) General Education. (MJC-GE:C) (CSU-GE:C1) (IGETC:3A)

**ART 165 — HISTORY OF ART 2**  
3 UNITS  
54 Lecture hours  
Continuation of study of painting, sculpture and architecture from Renaissance to the present. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) General Education. (MJC-GE:C) (CSU-GE:C1) (IGETC:3A)

**ART 168 — HISTORY OF PHOTOGRAPHY**  
3 UNITS  
54 Lecture Hours, Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 170 or satisfactorily complete ART 171. An overview of the history of photography from 1800 to the present. Discussion of processes, the work of major practitioners, as well as lesser known figures, the trends, aesthetic movements, and artist groups that have shaped the course of the medium. Emphasis on those working in the fine arts. Field trips might be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) General Education. (MJC-GE:C) (CSU-GE:C1) (IGETC:3A)

**ART 169 — SURVEY OF ASIAN ART**  
3 UNITS  
54 Lecture Hours, Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 170 or satisfactorily complete ART 171. An introduction to the art and architecture of India, China, Korea, Japan, Southeast, Central and Western Asia. Analysis of secular and religious trends in art from the Neolithic period to present. Field trips might be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) General Education. (MJC-GE:C) (CSU-GE:C1) (IGETC:3A)

**ART 170 — BASIC PHOTOGRAPHY**  
3 UNITS  
27 Lecture Hours, 81 Lab Hours,  
Introduction to the art and technique of photography: cameras, black-and-white film and print processing, composition, presentation, and concepts related to photographic fine art. Practical emphasis is on film photography with discussion of digital applications. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) General Education. (MJC-GE:C) (CSU-GE:C1) (IGETC:3A)

**ART 172 — INTERMEDIATE PHOTOGRAPHY**  
3 UNITS  
27 Lecture hours, 81 Lab hours,  
Prerequisite: Satisfactory completion of ART 170 or 172. Refinement of basic craft, vision, and aesthetics as they apply to black and white photography. Continued emphasis on visual literacy and personalized seeing. Field trips required. Project card use available. Lecture/Laboratory. Materials fee required. **Transfer:** (CSU, UC)

**ART 173 — DIGITAL IMAGING FOR PHOTOGRAPHERS**  
3 UNITS  
36 Lecture Hours, 54 Lab hours, Recommended for Success: Satisfactory completion of ART 170  
Introductory course in digital imaging and electronic desktop photography. Applications related to the use of fine art photography and publication will be emphasized. The class includes lectures, discussions, critiques, computer laboratory work. Field trips required. **Transfer:** (CSU, UC)  

**ART 175 — COLOR PHOTOGRAPHY**  
3 UNITS  
27 Lecture hours, 81 Lab hours,  
Prerequisite: Satisfactory completion of ART 172 or 186. Introduction to color photography. Transparency and negative materials; printing processes; print presentation and aesthetics. Field trips required. Lecture/Laboratory. (A-F Only) (Fall) **Transfer:** (CSU, UC)

**ART 178B, C, D — ADVANCED PHOTOGRAPHY**  
2, 3, 4 UNITS  
B = 72 Lab hours, C = 108 Lab hours, D = 144 Lab hours, Prerequisite: Satisfactory completion of ART 172 or 186  
Recommended for Success: Satisfactory completion of ART 168 Advanced exploration in the visual and technical areas of either black and white, color, or non-silver photography. Students will design a project and produce a portfolio of finished work. Field trips may be required. Materials fee required. Completions to 8 units maximum. Other - combination seminar, and hours arranged. **Transfer:** (CSU, UC)

**ART 181 — BASIC PHOTOGRAPHY 1**  
1½ UNITS  
18 Lecture hours, 27 Lab hours,  
Introduction to the art and craft of photography: cameras, films, papers, basic black and white darkroom operations, composition, print quality, and photographic seeing. Field trips required. ART 181 and ART 182 are the two semester equivalent of ART 170 but do not fulfill the CSU-GE requirement. Trustee receipt required to purchase course materials as needed. Lecture/Laboratory. **Transfer:** (CSU, UC) (MJC ART 181+182 = CC ART 40) General Education: (MJC-GE:C)

**ART 182 — BASIC PHOTOGRAPHY 2**  
1½ UNITS  
18.00 Lecture Hours, 27 Lab Hours, Prerequisite: Satisfactory completion of ART 181. Further introduction to the art and techniques of photography: cameras, films, papers, basic black-and-white darkroom operations, image composition, print quality, and photographic seeing. ART181 and ART 182 are the two semester equivalent of ART 170. Materials fee required. Field trips might be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) General Education: (MJC-GE:C)

**ART 185 — INTERMEDIATE PHOTOGRAPHY 1**  
1½ UNITS  
18 Lecture hours, 27 Lab hours,  
Prerequisite: Satisfactory completion of ART 170 or 182. Refinement of basic craft, vision and aesthetics as they apply to black and white photography. Continued emphasis on visual literacy and personalized seeing. ART 185 and ART 186 are the two-semester equivalent of ART 172. Field trips required. Trustee receipt required to purchase course materials as needed. Lecture/Laboratory. **Transfer:** (CSU, UC)

**ART 186 — INTERMEDIATE PHOTOGRAPHY 2**  
1½ UNITS  
18 Lecture hours, 27 Lab hours,  
Prerequisite: Satisfactory completion of ART 185. Refinement of basic craft, vision and aesthetics as they apply to black and white photography. Continued emphasis on visual literacy and personalized seeing. ART 185 and ART 186 are the two-semester equivalent of ART 172. Field trips required. Trustee receipt required to purchase course materials as needed. Lecture/Laboratory. **Transfer:** (CSU, UC)

**ART 189AB — PHOTO LABORATORY TECHNOLOGY**  
1-2 UNITS  
A = 54 Lab Hours, B = 108 Lab Hours, Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 170. Techniques for maintenance and operation of a photographic lab facility: equipment, chemistry, scheduling and other related activities. Four completions allowed. Field trips might be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) Graduation. (MJC-Activities)

**ART 191 — PHOTO LABORATORY TECHNOLOGY 2**  
1 UNITS  
54 Lab Hours, Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ART 170. Maintenance and operation of a photographic lab facility: equipment, chemistry, scheduling and other related activities. Four completions allowed. Field trips might be required. (A-F or P/NP) Lecture. **Transfer:** (CSU, UC) Graduation. (MJC-Activities)

**ART 197 — FIELD STUDIES IN PHOTOGRAPHY**  
1 UNITS  
9 Lecture hours, 27 Lab hours, Preparation of and participation in field studies of various thematic and technical approaches to photography as a fine art. Use of cameras and related equipment. Travel to specific geographic regions to augment the study of particular styles of photography. Geographic areas to be studied will vary from one term to the next. May be completed up to 4 times. (A-F or P/NP) Lecture/Lab. **Transfer:** (CSU, UC)  

**CURRICULUM CHANGES "IMPACT" PROOF**

INACTIVATED: NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER I/O REVIEW
ASTRO 141—INTRODUCTION TO ASTROPHYSICS 3 UNITS
54 Lecture Hours
Prerequisite: Satisfactory completion of PHYS 142 or PHYS 101
Recommended for Success: Satisfactory completion of MATH 122 or qualification by MJC assessment process.

Designed for students with a mathematical and/or scientific background. Study of planetary astronomy, stars and stellar evolution, gravity and cosmology, with emphasis on physical principles. Field trips required. Lecture. (A-F or P/NP). Transfer: (CSU, UC). General Education: (MJC-GE: A) (CSU-GE: B3) (IGETC: 5C)

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

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

ASTRO 160—INTRODUCTION TO MODERN ASTRONOMY 3 UNITS
54 Lecture Hours,
Introductory survey course in astronomy. Emphasis on current studies of the solar system, the study of extra solar planetary systems, the birth and death of stars, and cosmology. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC). General Education: (MJC-GE: A) (CSU-GE: BS) (IGETC: SA)

ASTRO 161—INTRODUCTION TO MODERN ASTRONOMY 3 UNITS
54 Lecture Hours,

AUBDy 115—INTRODUCTION TO TECHNICAL INDUSTRIES 1 UNIT
18 Lecture hours, 9 Lab hours
Also offered as AUTEC 115 and INTEC 115

Introduction to educational and technical employment opportunities. Includes an understanding of curriculum requirements that pertain to educational goals as they relate to technical majors. Assists students in setting goals and developing skills necessary for life-long success in obtaining, maintaining, and advancing in technical careers. Current events that impact technical industries and society will be discussed. History and employment opportunities in technical industries—techniques and applications of sound shop/agency practices and hazardous waste management—Development of an educational plan and presentations by MJC counselors. Field trips may be required. Materials fee required. Lecture/Other. (A-F Only) MJC Guidance. Transfer: CSU

AUBDy 301—AUTOMOTIVE COLLISION REPAIR 1 5 UNITS
18 Lecture hours, 162 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be concurrently enrolled in AUBDY 321.

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

AUBDy 302—AUTOMOTIVE COLLISION REPAIR 2 5 UNITS
36 Lecture hours, 162 Lab hours
Prerequisite: Satisfactory completion of AUBDY 301 with a minimum grade of C or better.

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

AUBDy 303—AUTOMOTIVE COLLISION REPAIR 3 4 UNITS
18 Lecture hours, 162 Lab hours
Prerequisite: Satisfactory completion of AUBDY 302 with a minimum grade of C or better.

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

AUBDy 321—AUTOMOTIVE SPRAY REFINISHING 1 2 UNITS
18 Lecture hours, 54 Lab hours
Introduction to automobile spray painting. Study of materials, supplies and equipment. Experience in feather edging and application of base coats; spray techniques in spot blending and panel refinishing with a base coat and clear coat. Materials Fee Required Field trips may be required. (A-F Only) Lecture/Lab

AUBDy 322—AUTOMOTIVE SPRAY REFINISHING 2 3 UNITS
18 Lecture hours, 108 Lab hours
Prerequisite: Satisfactory completion of AUBDY 321 and AUBDY 301.
Continuation of AUBDY 321 with further instruction of automotive refinishing with single stage, base/clear coat urethane paints, and estimate writing. Materials Fee Required Field trips may be required. (A-F Only) Lecture/Lab
AUTEC 317—AUTO HEATING & AIR CONDITIONING 3½ UNITS
36 Lecture hours, 72 lab hours
Formerly listed as: AUTEC - 317: Auto Heating and Air Conditioning
Prerequisite: Satisfactory completion of AUTEC 311 or AGM 241.
Principles of automotive air conditioning and the components used in air conditioning. Factory installed air conditioning units and add on type units. Charging, leak detection, component replacement and repair procedures. Materials Fee Required. (A-F Only) Lecture/Lab

AUTEC 319—A8: ENGINE PERFORMANCE 3½ UNITS
36 Lecture Hours, 81 Lab Hours,
Prerequisite: Satisfactory completion of AUTEC 368.
Corequisite: Concurrent enrollment in or satisfactory completion of AUTEC 369.
Prepares students for Automotive Service Excellence A8 Exam. Comprehensive study of diagnosis and repair applications including general engines, ignition systems, fuel, air induction and exhaust systems, emission control systems, computerized engine controls, and engine electrical systems. Materials fee required. Field trips might be required. (A-F Only)

AUTEC 320—L1: ADVANCED ENGINE PERFORMANCE 4 UNITS
Formerly listed as: AUTEC - 320:L1: Advance Engine Performance
54 Lecture Hours, 54 Lab Hours,
Prerequisite: Satisfactory completion of AUTEC 319.
Prepares students for the Automotive Service Excellence L1 Exam. Advanced engine performance topics including test equipment and diagnosis techniques of powertrain and computerized powertrain controls, fuel system and air induction systems, automotive emission controls and I/M failures. Materials fee required. Field trips might be required. (A-F Only)

AUTEC 321—A5: BRAKES SYSTEMS 3½ UNITS
36 Lecture Hours, 81 Lab Hours,
Prerequisite: Satisfactory completion of AUTEC 311.
Prepares students for the Automotive Services Excellence A5 Exam. Principles of design and operation, techniques for repair, diagnosis and replacement of 4-wheel braking systems. Emphasis on the theory of operation, diagnosis, and repair of modern braking systems and their related component. Preparation for the State Brake Test and ASE Certification Test is included. Materials fee required. Field trips might be required. (A-F Only)

AUTEC 322—A4: STEERING, SUSPENSION AND ALIGN 3½ UNITS
36 Lecture Hours, 81 Lab Hours,
Prerequisite: Satisfactory completion of AUTEC 311.
Prepares students for the Automotive Service Excellence A4 Exam. Principles of design and operation, techniques for diagnosis and repair of steering and suspension systems. Includes component replacement and alignment theory and procedures using two and four-wheel alignment equipment. Materials fee required. Field trips might be required. (A-F Only)

AUTEC 323—A2: AUTOMATIC TRANSMISSION & TRANSAXLES 3½ UNITS
36 Lecture Hours, 81 Lab Hours,
Prerequisite: Satisfactory completion of AUTEC 311.
Prepares students for the Automotive Service Excellence A2 Exam. A detailed study of the clutch, standard and automatic transmissions, drive lines and differentials. Theory of operation including: friction materials, hydraulics, torque converters, gear trains, planetary gears, and controls as well as gear ratios; torque multiplication, speeds, drive line angles and tooth patterns. Materials fee required. Field trips are not required. (A-F Only)

AUTEC 324—A3: MANUAL TRANS AND DR AXLES 3½ UNITS
36 Lecture Hours, 81 Lab Hours,
Prerequisite: Satisfactory completion of AUTEC 311.
Prepares students for the Automotive Service Excellence A3 Exam. Construction, operation and diagnosis of manual transmissions and axles, to include service and overhaul. Theory as well as "hands-on" training with clutch systems and drive axle operation and service. Materials fee required. Field trips might be required. (A-F Only)

AUTEC 368—A6: AUTOMOTIVE ELECTRICITY/ ELECTRONIC SYSTEMS I 3½ UNITS
36 Lecture hours, 81 lab hours
Corequisite: Concurrent enrollment in or satisfactory completion of AUTEC 311.
Introduction to automotive electrical systems. Course covers basic fundamentals. Ohm’s law, starting and charging systems, batteries, alternators and starters. Course also covers principles of operation, testing, adjusting, and rebuilding procedures for electrical systems. Materials Fee Required. (A-F Only) Lecture/Lab.

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AUTEC - BIO

COURSES OFFERED
BIO 111—GENERAL ECOLOGY 4 UNITS
54 Lecture hours, 54 Lab hours
Formerly listed as BIO 114—Introduction to Ecology
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.
Introduction to the biological sciences and the general concepts and principles of ecology. Topics include organization and energetics of nature, natural interactions and biodiversity. Includes global and local ecosystems, scientific methods of ecological research, nutrient cycles and conditions of existence, and ecological assessment. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education. (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: SB, SC)

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

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

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

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

BIO 151X,A,B,C — BIOLOGY FIELD STUDIES 1/2, 1, 2, 3 UNITS
X=9 Lecture hours, A=18 Lecture hours, B=36 Lecture hours, C=54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BIO 111, BIO 101, ZOOL 101, BOT 101 or other college-level biology course.
Field trips to represent and unique ecosystems. Emphasis on life histories, adaptations and biological interactions of organisms within the ecosystem studied. Field experiences will include sampling methods, preparation of field notes and field identification of species characteristic of the ecosystem. Field trips are required. Lecture/Laboratory. Four completions allowed in any combination not to exceed 6 units. Materials fee required. Not offered every semester. Transfer: CSU

BIO 180AB—INTRODUCTION TO TUTORING BIOLOGY 1, 2 UNITS
Formerly listed as: BIO-180: Special Projects in Biology
A=9.00 Lecture Hours, 27 Lab Hours, B=18.00 Lecture Hours, 54 Lab Hours, Prerequisite: Satisfactory completion of BIO 111 or BIO 116 or BIO 101.
Fundamental skills of tutoring in the biology lab. Strategies for tutoring students enrolled in general biology or human biology will be learned. Specific focus will be on techniques for identifying microscopic and macroscopic structures in the biology lab. Intended for students selected as tutors for the biology or human biology lab. Four completions allowed. Field trips might be required. (A-F or P/NP) Transfer: CSU
COURSES OFFERED

BUSAD (Business Administration)

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

BOT (Botany)

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

BUSAD 201—FINANCIAL ACCOUNTING  
4 UNITS
72.00 Lecture Hours,
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 310 and satisfactorily complete ENGL 50.

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

BUSAD 202—MANAGERIAL ACCOUNTING  
4 UNITS
72.00 Lecture Hours,
Prerequisite: Satisfactory completion of BUSAD 201.

This course examines how managers use accounting information in decision-making, planning, directing operations, and controlling. Focuses on cost terms and concepts, cost behavior, cost structure, and cost-volume-profit analysis. Examination of profit planning, standard costs, operations and capital budgeting, cost control, and accounting for costs in manufacturing organizations. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC)

BUSAD 203—COMPUTER ACCOUNTING  
3 UNITS
36 Lecture Hours, 54 Lab Hours,
Prerequisite: Satisfactory completion of BUSAD 201 or BUSAD 310.

This course is recommended for students desiring to work in accounting software packages. It focuses on the use of the computer in accounting/bookkeeping. Practical applications of accounting through hands-on experiences on the personal computer using a variety of current computer accounting software packages. Two completion's allowed. Field trips are not required. (A-F or P/NP) Transfer: (CSU)

BUSAD 204—COST ACCOUNTING  
4 UNITS
54 Lecture Hours,
Prerequisite: Satisfactory completion of BUSAD 201 and 202.

This course introduces cost accounting theory and practice. Control of material, labor and burden costs; methods of applying expenses; job order and process cost system; cost statements. Lecture. Transfer: CSU

BUSAD 208—INTRODUCTION TO INTERNATIONAL BUSINESS  
3 UNITS
54 Lecture hours

Also offered as: AGEC - 208: Introduction to International Business
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 248.

A comprehensive overview of international business. A global perspective of international trade, international marketing, international accounting, the operation of multinational companies, economic theories and forces, international organizations and the political and cultural impact of world trade. Field trips might be required. (A-F or P/NP) Student choice Lecture Transfer: (CSU)

BUSAD 209—IMPORT/EXPORT FUNDAMENTALS  
3 UNITS
54 Lecture Hours,
Also offered as: AGEC - 209: Import/Export Fundamentals
Overview of processes and procedures involved in importing and exporting products and services. Special emphasis on finance and financial documentation. Field trips might be required. (A-F Only) Lecture Transfer: (CSU)

BUSAD 210—BUSINESS COMMUNICATION  
3 UNITS
54 Lecture hours

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101
Principles and applications of written and oral business communications, including routine memo and letter writing, persuasive writing, oral communication, and informative report writing. (A-F or P/NP) Lecture Transfer: CSU General Education: (MJC-GE: D2)

BUSAD 218—BUSINESS LAW  
4 UNITS
72 Lecture hours
Laws and regulations affecting managerial decisions; legal concepts and case analysis in the areas of ethics, employment, consumer transactions, competition, the environment, business torts and crimes, contracts, agency, business organizations, and international business. (A-F or P/NP) Lecture Transfer: (CSU, UC) (CC BUSAD 18)
### BUSAD 230—PERSONAL FINANCE 3 UNITS 54 Lecture Hours
Open to both business and non-business majors. An integrated approach to personal finance and financial literacy. Topics are designed to facilitate informed and deliberate decision making, in alignment with personal values, to maximize financial resources throughout the individual’s life span. Emphasizes practical decision making using contemporary theory and real world examples while integrating the social, psychological, and physiological context in which financial decisions are made. Topics include common financial issues such as budgeting, career planning, goal setting, purchasing and financing a home and other large consumer purchases, personal risk management and insurance issues, managing credit, investment strategies, as well as tax, retirement and estate planning. Field trips are not required. (A-F or P/NP) Transfer: (CSU) General Education: (MJC-GE: E) (CSU-GE: E)

### BUSAD 233—INVESTMENTS 3 UNITS 54 Lecture hours
Recommended for Success: Satisfactory completion of BUSAD 230, and at least one semester of accounting.
Thorough study of corporate stocks and bonds, with time deposits, government securities, mutual funds, real estate, commodity futures, options and less common investment media receiving brief consideration. Emphasis on careful, critical investigation of risk and reward—rigorous mathematical analysis expected. Field trips may be required. Lecture. Transfer: CSU

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

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

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

### BUSAD 249—BUSINESS INTERNSHIP 4 UNITS 72 Discussion hours
An internship program with selected business firms dealing with either accounting, computer science, marketing, business law, office administration, bookkeeping, or retail management practices in public or private agencies. Student interns will be under joint supervision of the employers and a faculty member. Intended to provide practical applications for students who have developed theoretical knowledge and effective interpersonal skills by completing their discipline’s introductory level course(s). See appropriate instructor for required enrollment form. Lecture. Transfer: CSU

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

### BUSAD 299A, B—MARKETING PROJECTS 1.2 UNITS 54–54 Lab hours
Formerly listed as BUSAD 285A, B—Special Projects
Independent analysis or design of computer accounting software or work in specialized BUSAD topics. Projects must have the approval of instructor. Conference with the instructor: minimum of 1 per month. Completions up to 4 maximum units. Laboratory. Transfer: CSU

### BUSAD 300—MACHINE CALCULATION 2 UNITS 36 Lecture hours, 18 Lab hours
Recommended for Success: Satisfactory completion of MATH 20
Instruction in the operation of the electronic calculator including addition, subtraction, multiplication, and division using constant factors and automatic accumulation as applied to business applications. Major emphasis on 10-key touch operation. Lecture/Laboratory.

### BUSAD 310—BOOKKEEPING 1 3 UNITS 54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 300 or satisfactorily complete MATH 50.

### BUSAD 319—PAYROLL ACCOUNTING 3 UNITS 36 Lecture hours, 54 Lab hours
Prerequisites: Satisfactory completion of BUSAD 310 or 201.
Recommended for Success: Satisfactory completion of BUSAD 320 if BUSAD 310 is used as a prerequisite.
Completing the payroll register. Reporting payroll tax information to the federal and state government, with emphasis on completing both quarterly and annual reports. Making the necessary journal entries: to record payroll transactions. Computing payroll on the microcomputer. Lecture/Laboratory.

### BUSAD 320—BOOKKEEPING 2 3 UNITS 54 Lecture hours
Prerequisite: Satisfactory completion of BUSAD 310
Entries requiring analysis and interpretation; entries for promissory notes; adjustments for prepaid, unearned and accrued items; depreciation of assets; property sales; closing of books; partnership and corporate accounting; cash flows and financial analysis. Lecture.

### BUSAD 331—BEGINNING COMPUTER ACCOUNTING SOFTWARE 1 UNIT 18 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to know the complete accounting cycle.
A beginning course using features of computerized accounting software package(s). Will enable students to learn and apply the features of computerized accounting software to record, process and communicate financial accounting data for a service or product based company in the small business setting. Three completions allowed. (A-F or P/NP) Lecture.

### BUSAD 332—INTERMEDIATE COMPUTER ACCOUNTING SOFTWARE 1 UNIT 18 Lecture hours
Prerequisites: Satisfactory completion of BUSAD 331
A continuation of the beginning course using features of computerized accounting software package(s). Course is designed to enable students to learn and apply the features of computerized accounting software to record, process and communicate financial accounting data for a merchandising company in the small business setting. Lecture. Two completions allowed.

### BUSAD 333—COMPUTER ACCOUNTING SOFTWARE 2 UNITS 36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to know the complete accounting cycle.
Combination of BUSAD 331 and BUSAD 332. Beginning course in the use of computerized accounting software package(s). Students will learn and apply the features of computerized accounting software in order to record, process and communicate financial accounting data for a service company and merchandising corporation in the small business setting. Three completions allowed. (A-F or P/NP) Lecture.

### BUSAD 336—TAX ACCOUNTING 3 UNITS 54 Lecture Hours,
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete BUSAD 201 or satisfactorily complete BUSAD 310.
Emphasis on US Federal Income Tax, including; preparation of Federal Tax Returns, supplemental Federal schedules for individuals and business forms, and computation of social security and other self-employment taxes. Field trips are not required. (A-F or P/NP)
CHEM (Chemistry)

Dean: Bitan Sanders
Division Office: Science Building, Room 126
Phone: (209) 575-6173
Division website: www.mjc.edu/current/programs/divdeps/sme/
Instructors: Joseph Caddell, Laura Maki, Mary Roslaniec, Suzanne Hulsey

CHEM 101—GENERAL CHEMISTRY 1 5 UNITS
54 Lecture hours, 72 Lab hours, 18 Discussion hours
Prerequisite: Satisfactory completion of CHEM 101.
Continuation of Chemistry 101 emphasizing kinetics, solutions, equilibrium, acids and bases, electrochemistry, thermodynamics, nuclear chemistry, coordination chemistry and descriptive chemistry. (A-F or P/NP) Lecture/Lab/Discussion. Transfer: (CSU, UC) (CC CHEM 1A) (C-ID CHEM 110) (CHEM 101+CHEM 102= C-ID CHEM 120S) General Education. (MJC-GE:A)(CSU-GE: B1, B3)(IGETC: 5A, 5C)

CHEM 102—GENERAL CHEMISTRY 2 5 UNITS
54 Lecture hours, 54 Lab hours, 18 Discussion hours
Prerequisite: Satisfactory completion of CHEM 101.
Continuation of Chemistry 101 emphasizing kinetics, solutions, equilibrium, acids and bases, electrochemistry, thermodynamics, nuclear chemistry, coordination chemistry and descriptive chemistry. (A-F or P/NP) Lecture/Lab/Discussion. Transfer: (CSU, UC) (CC CHEM 1B) (CHEM 101+CHEM 102= C-ID CHEM 120S) General Education. (MJC-GE:A)(CSU-GE: B1, B3)(IGETC: 5A, 5C)

CHEM 112—ORGANIC CHEMISTRY 1 5 UNITS
54 Lecture hours, 72 Lab hours, 18 Discussion hours
Prerequisite: Satisfactory completion of CHEM 102.
Nomenclature, structure, reactions and spectroscopy of carbon containing compounds. Laboratory emphasizes basic techniques of synthesis, purification, and identification of organic compounds. (A-F or P/NP) Lecture/Lab/Discussion. Transfer: (CSU, UC) General Education. (MJC-GE:A)(CSU-GE: B1,B3)(IGETC: 5A, 5C)

CHEM 120—EXPLORING OUR CHEMICAL ENVIRONMENT 3 UNITS
54 Lecture hours
Chemical perspective of environmental topics including acid rain and global warming. Basic chemical principles are developed in order to understand such items as conventional, nuclear, and alternative energy sources, air and water pollution, fertilizers, pesticides, food preservatives, genetic engineering, and medicines and drugs. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE:A)(C-ID CHEM 2D) General Education. (MJC-GE:A)(CSU-GE: B1, B3)(IGETC: 5A, 5C)

CHEM 142—PRE-GENERAL CHEMISTRY 3 UNITS
54 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process.
Recommended for Success: Satisfactory completion of MATH 90.
Chemistry intended to prepare students for General Chemistry with an emphasis on problem solving using unit analysis. Included are topics on classification of matter, nomenclature, gas laws, chemical formula, molar mass, empirical formula, chemical reactions, atomic and molecular structure, measurements and the metric system, chemical reactions and stoichiometry, aqueous solutions and fundamentals of acids and bases. (A-F or P/NP) Lecture/Discussion. Transfer: (CSU, UC) General Education. (MJC-GE:A)(CSU-GE: B1)(IGETC: 5A)

CHEM 143—INTRODUCTORY COLLEGE CHEMISTRY 3 UNITS
54 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process.
Recommended for Success: Satisfactory completion of MATH 90.
Designed to meet the requirements for certain nursing, dental hygiene, physical therapy, agriculture and forestry programs. Principles of general, inorganic chemistry with an introduction to organic chemistry. Uses the factor-label method of problem solving. Credit not granted to students who have completed CHEM 142. (A-F or P/NP) Lecture/Lab/Discussion. Transfer: (CSU, UC) (CC CHEM 11) General Education. (MJC-GE:A)(CSU-GE: B1, B3)(IGETC: 5A, 5C)

CHEM 144—FUNDAMENTALS OF ORGANIC & BIOCHEMISTRY 4 UNITS
54 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of CHEM 143.

CHEM 150—EXPLORING OUR CHEMICAL ENVIRONMENT 3 UNITS
54 Lecture hours
Chemical perspective of environmental topics including acid rain and global warming. Basic chemical principles are developed in order to understand such items as conventional, nuclear, and alternative energy sources, air and water pollution, fertilizers, pesticides, food preservatives, genetic engineering, and medicines and drugs. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE:A)(CSU-GE: B1, B3)(IGETC: 5A, 5C)

CHEM 164—INTRODUCTORY CHEMISTRY LABORATORY 2 UNITS
18 Lecture hours, 54 Lab hours
Corequisite: or satisfactory completion of Concurrent enrollment in or satisfactory completion of CHEM 150.
Introductory concepts and techniques used in a chemistry laboratory. Recommended for liberal studies and other non-science majors. Topics include: scientific method, measurements, physical and chemical changes, data analysis, molecular compounds, chemical reactions and energy. No credit will be given for students who have completed CHEM 143 or CHEM 101. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education. (MJC-GE:A)(CSU-GE: B1, B3)(IGETC: 5A, 5C)

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED- NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW

COURSES OFFERED
CLDDV (Child Development)

Dean: Maurice McKinnon, EdD
Division Office: John Muir Hall, Room 157
Phone: (209) 575-6343
Division website: www.mjc.edu/prospective/programs/fcs/index.html
Instructors: Cheryl Williams-Jackson, Deborah Laffranchini, Laurie Hatch, Pam Guerra-Schmidt

CLDDV 48A-B — FUNDAMENTAL COMMUNICATION — SKILLS FOR CHILD DEVELOPMENT MAJORS

1-2 UNITS

Recommended for success: Enrollment in at least one of the Child Development courses. Emphasis on developing fundamental communication skills including reading comprehension, preparation of written assignments, and spoken communication specific to the terminology utilized in the field of child development. Credit in this course may not be used to satisfy Child Development requirements for graduation from Modesto Junior College. Class can be completed a maximum of four times, for a maximum of 8.0 units, combined between 48A and 48B. Lecture.

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

Formerly listed as: CLDDV - 101: Introduction to Early Childhood Education
54 Lecture Hours,
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Examination of the underlying theoretical principles of developmentally appropriate practices applied to educational programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, emotional, creative, and intellectual development for children 0-8. Review of the historical roots of early educational programs and the evaluation of the professional practices promoting advocacy, ethics, and professional identity. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: B, E)(CSU-GE: D7, E)

CLDDV 103—CHILD GROWTH AND DEVELOPMENT 3 UNITS

Formerly listed as: CLDDV - 103: Child Growth and Development
54 Lecture Hours,
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Examines the major physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from conception through adolescence. Emphasis on interactions between maturational processes and environmental factors. While studying developmental theory and investigative research methodologies, students will observe children, evaluate individual differences and analyze characteristics of development at various stages. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B, E)(CSU-GE: D7, E)

CLDDV 104—CHILD GROWTH AND DEVELOPMENT 2 UNITS

Formerly listed as: CLDDV - 104: Child Growth and Development: Concept
36 Lecture Hours,
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

First half of CLDDV 104—Examines the major physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from conception through early childhood. Emphasis on interactions between maturational processes and environmental factors. While studying developmental theory and investigative research methodologies, students will observe children, evaluate individual differences and analyze characteristics of development at various stages. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B, E)(CSU-GE: D7, E)

CLDDV 105—CHILD GROWTH AND DEVELOPMENT 2 UNITS

LATE CHILDHOOD THROUGH ADOLESCENCE

36 Lecture Hours
Formerly listed as: CLDDV 105: Child Growth and Development Late Childhood
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Second half of CLDDV 104—Late childhood through late adolescence. Examines the major physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from late childhood through late adolescence. Emphasis on interactions between maturational processes and environmental factors. While studying developmental theory and investigative research methodologies, students will observe children, evaluate individual differences and analyze characteristics of development at various stages. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B, E)(CSU-GE: D7, E)

CLDDV 107—INTRODUCTION TO CURRICULUM 3 UNITS

54 Lecture Hours
Formerly listed as: CLDDV 107: Introduction to Child Development Curriculum
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

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

CLDDV 109—CHILD - FAMILY - COMMUNITY 3 UNITS

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

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

CLDDV 111—HEALTH, SAFETY, AND NUTRITION 3 UNITS

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

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

CLDDV 121—GUIDANCE OF YOUNG CHILDREN 3 UNITS

54 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and satisfactorily complete CLDDV 101 and satisfactorily complete CLDDV 104 and CLDDV 105.

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

CLDDV 122—LEARNING ENVIRONMENTS FOR INFANTS AND TODDLERS 3 UNITS

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

Development and evaluation of the physical and social learning environments for infants and toddlers including goals, curriculum, materials, state regulations, equipment, and interaction of children, staff, and families. (A-F or P/NP) Lecture. Transfer: CSU
CLDDV 125 — INFANT AND TODDLER DEVELOPMENT AND CARE  3 UNITS
Lecture 54 Lecture hours
Prerequisite: Satisfactory completion of CLDDV 103 or CLDDV 104 and CLDDV 105.
Recommended for Success: Before enrolling in this course, students are strongly advised to
satisfactorily complete ENGL 50.
Infant and toddler developmental milestones and practices for stimulation and learning. Explora-
tion and assessment of the infant and toddler curriculum and environment, family involvement,
educational theory, and recent brain research concerning the first three years of life. Health, safety,
nutrition, aspects of group care, and the review of Department of Social Services Regulation
compliance in infant and toddler programs. Field trips may be required. (A-F or P/NP) Lecture.
Transfer: CSU (CC CHILD 25)

CLDDV 126C,D,E— INCLUSION SPECIAL NEEDS PRACTICUM  3 - 5 UNITS
C=18 Lecture hours, 108 Lab hours, D=36 Lecture hours, 108 Lab hours, E= 36 Lecture hours, 162 Lab hours,
Prerequisite: Satisfactory completion of CLDDV 103.
Corequisite: Concurrent enrollment in or satisfactory completion of CLDDV 121.
Recommended for Success: Before enrolling in this course, students are strongly advised to
satisfactorily complete ENGL 50.
Limitations on Enrollment: TB clearance is required, Title 22.
Child centered, play-oriented approaches to student teaching experience under guided supervision
with toddlers and/or preschool-aged children with an identified disability. Build a comprehensive
understanding of children and families through individualized, relationship-based (DIR FloorTime)
caregiving including the development of relationships with families. Build connections between
theory and practice, develop professional behaviors, practice positive and nurturing guidance
techniques, and utilize facilitation-based teaching through authentic observation, documentation,
screening, and assessment while designing, facilitating, and evaluating curriculum that support
an inclusive and culturally diverse environment. Will support IFSP goals and may include participation
in an educational meeting.
CLDDV 130 — Supervised Field Experience — may NOT be used as a substitute for lab practicum.
Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture/ Lab/ Transfer: CSU

CLDDV 127B,C,D,E— INFANT/TODDLER PRACTICUM  2 - 5 UNITS
B=18 Lecture hours, 54 Lab hours; C=18 Lecture hours, 108 Lab hours; D= 18 Lecture hours, 162 Lab hours, E= 18 Lecture hours, 210 Lab hours
Concurrent enrollment in or satisfactory prior completion of CLDDV 125.
Recommended for Success: Before enrolling in this course, students are strongly advised to
satisfactorily complete ENGL 50.
Enrollment limited to those who can present evidence of TB clearance.
Child centered, play-oriented approaches to student teaching experience under guided supervision
with infants and toddlers who may have a disability. Build a comprehensive understanding of
children and families through individualized, relationship-based caregiving including the develop-
ment of relationships with families. Build connections between theory and practice, develop pro-
fessional behaviors, practice positive and nurturing guidance techniques, and utilize facilitation-
based teaching through authentic observation, documentation, screening, and assessment while
designing, facilitating and evaluating curriculum that support an inclusive and culturally diverse
environment. Will support IFSP goals and may include participation in an educational meeting.
CLDDV 130 — Supervised Field Experience — may NOT be used as a substitute for lab practicum.
Course is repeatable up to a maximum of 5 units earned. Field trips may be required. A-F or P/NP)
Lecture/Lab/Transfer: CSU (CC CHILD 16)

CLDDV 128B,C,D,E— PRESCHOOL PRACTICUM  2 - 5 UNITS
B=18 Lecture hours, 54 Lab hours, C=18 Lecture hours, 108 Lab hours, D=18 Lecture hours, 162 Lab hours, E=18 Lecture hours, 210 Lab hours
Prerequisite: Satisfactory completion of CLDDV 101 or CLDDV 103 or CLDDV 104 and CLDDV 105.
Recommended for Success: Before enrolling in this course, students are strongly advised to
satisfactorily complete ENGL 50 and satisfactorily complete or be concurrently enrolled in
CLDDV 121.
Limitations on Enrollment: TB clearance is required.
Child centered, play-oriented approaches to student teaching experience under guided supervision
with preschool-aged children who may have a disability. Build a comprehensive understanding
of children and families through individualized, relationship-based caregiving including the
development of relationships with families. Build connections between theory and practice, develop pro-
fessional behaviors, practice positive and nurturing guidance techniques, and utilize facilitation-
based teaching through authentic observation, documentation, screening, and assessment while
designing, facilitating and evaluating curriculum that support an inclusive and culturally diverse
environment. Will support IFSP goals and may include participation in an educational meeting.
CLDDV 130 — Supervised Field Experience — may NOT be used as a substitute for lab practicum.
Four completions allowed. Field trips may be required. A-F or P/NP) Lecture/Lab/ Transfer: CSU (CC CHILD 16)

CLDDV 130B,C,D— SUPERVISED FIELD EXPERIENCE  2-4 UNITS
Formerly listed as CLDDV 260
Limitations on Enrollment: Fingerprint and TB clearances are required.
Designed to combine experience in an infant, toddler, preschool, school-age care facility, or K-12-
classroom with an expansion of skills or knowledge acquired at a site of employment on a paid or
volunteer basis. Provides an orientation to the structure of work experience education and devel-
ops specific knowledge and skills related to employment situations through the accomplishment
of goals. 75 paid hours or 60 volunteer hours of related work experience are required for the 2-unit
class; 150 paid hours or 120 volunteer hours of related work experience are required for the 3-unit
class; 225 paid hours or 180 volunteer hours of related work experience are required for the 4-unit
class. This course may NOT be used as a substitute for lab practicum. This course can be completed a
maximum of four times, for a maximum of 16.0 units. Lecture/F Field Experience. Transfer: CSU

CLDDV 150— ADMINISTRATION OF CHILDREN’S PROGRAMS  3 UNITS
54 Lecture hours
Formerly listed as CLDDV 250
Prerequisite: Satisfactory completion of CLDDV 103, or CLDDV 104 and CLDDV 105
Laws governing private and public programs serving young children in California. Aspects of
records, reports, health and safety, finances, staff management, curriculum development, spatial
and equipment requirements, and parent/community relationships from the administrator’s point
of view. Lecture: Transfer: CSU (CC CHILD 30)

CLDDV 151— ADVANCED ADMINISTRATION OF CHILDREN’S PROGRAMS  3 UNITS
54 Lecture hours
Formerly listed as CLDDV 270
Prerequisite: Satisfactory completion of CLDDV 150
Management and supervision in Early Care and Education programs. Includes strategic planning,
group dynamics, supervision of staff and volunteers, development of motivation and morale,
leadership and management skills, functions of personnel, interview skills, evaluations, human
resource issues, resolving group conflicts and working with Recommended for Success boards.
Designed to provide knowledge of methods and principles for working with adults in a supervisory
capacity in Early Care and Education settings. Field trips may be required. (A-F or P/NP) Lecture.
Transfer: CSU (CC CHILD 31)

CLDDV 154— ADULT RELATIONSHIPS AND MENTORING IN SCHOOLS  2 UNITS
36 Lecture hours
Formerly listed as CLDDV 264
Prerequisite: Satisfactory completion of CLDDV 101, CLDDV 103, or (CLDDV 104 and CLDDV 105)
Impact of staff interaction on children and adults in the classroom environment. Roles and func-
tions of adults as professionals. Three completions allowed. Field trips may be required. Lecture.
(A-F or P/NP) Transfer: CSU

CLDDV 160— ATYPICAL DEVELOPMENT  3 UNITS
54 Lecture hours
Formerly listed as CLDDV 277
Recommended for success: ENGL 50, CLDDV 103, or CLDDV 104 and CLDDV 105
Examines the interaction of genetic, biological, and environmental influences in the prenatal, natal,
and postnatal environment that contribute to the development of the atypical child. Identification
of a variety of special needs in children from birth to 12 years of age. Factors influencing
development will be explored including family, community, and culture as the child is included in
all environments. Lecture: Transfer: CSU General Education. (MJC-GE B)

CLDDV 163— WORKING WITH CHILDREN WITH SPECIAL NEEDS  3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to
satisfactorily complete ENGL 50.
Introduction to inclusion of children with special needs, from infancy to adolescence in the home,
school, and community. Includes laws and policies. Emphasis on cognitive, social, emotional, and
physical development for the child with disabilities in care and educational settings. Collaboration
with parents as partners and methods for working with professionals. Field trips may be required.
(A-F or P/NP) Lecture. Transfer: CSU (CC CHILD 19)

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED: NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW

COURSES OFFERED

CLDDV
CLDDV 165—CHILDREN AT RISK 3 UNITS
54 Lecture hours
Recommended for Success: Satisfactory completion of ENGL 50
Examines risky conditions for prenatal, infants, and young children including prenatal drug exposure, very low birth weight, serious congenital infection, congenital anomaly, low Apgar scores at birth, and other potential neurologic problems. Introduces the characteristics and effects of major childhood stressors, including parental divorce and remarriage, parental illness and death, childhood illnesses and disabilities, child abuse and family violence, and potential incarceration. Field trips may be required. Transfer: CSU

CLDDV 166—ADHD: IDENTIFY, ASSESS, INTERVENTIONS 1 UNIT
10 Lecture hours
Basic description of Attention Deficit Hyperactivity Disorder, causes, identification, assessment, and treatment. (A-F or P/NP) Lecture. Transfer: CSU

CLDDV 167—OBSERVATION AND ASSESSMENT 3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of CLDDV 103 or CLDDV 104 and CLDDV 105. Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.
Focus on appropriate use of assessment and observation strategies to document development, growth, play, and learning to join with families and professionals in promoting children’s success. Recording strategies, rating systems, portfolios, and multiple assessment tools are explored. Field trips may be required. (A-F or P/NP) Lecture. Transfer: CSU

CLDDV 173—AUTISM: OVERVIEW AND TREATMENT 3 UNITS
54 Lecture hours
Basic concepts of autism. Topics include description, identification, interventions and treatments, and DIF Floor Time approach. May be completed up to 4 times. (A-F or P/NP) Lecture. Transfer: CSU

CLDDV 201—HEALTH AND SAFETY PRACTICES 3 UNITS
54 Lecture hours
Universal health precautions and other health and safety practices for children’s programs. Health and safety requirements mandated by county and state, including injury prevention, infant and child first aid and CPR (satisfactory completion will earn students the Red Cross certificates in First Aid and CPR), prevention of infectious disease, caring for ill children, and recognizing signs of child abuse. Materials fee required. Lecture. Transfer: CSU

CLDDV 202—DIVERSITY IN EDUCATIONAL SETTINGS 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CLDDV 103 or satisfactorily complete CLDDV 104 and satisfactorily complete CLDDV 105 and satisfactorily complete ENGL 50.
Examination of the development of social identities in diverse societies including theoretical and practical implications of oppression and privilege as they apply to young children, families, programs, classrooms, and teaching. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of diverse society. Course includes self-examination and reflection on issues related to social identity, stereotypes and bias, social and educational access, and schooling. Field trips may be required. (A-F or P/NP) Lecture. Transfer: CSU

CLDDV 202C—BRAIN DEVELOPMENT THROUGH 3 UNITS
54 Lecture hours
Formerly listed as CLDDV 290C
Recommended for Success: Satisfactory completion of ENGL 50, CLDDV 103, or CLDDV 104 and CLDDV 105.
The brain and its connection to motor skill development in young children. Non-competitive group games, movement programs, and educational fitness. Lecture. Transfer: CSU

CLDDV 209—MUSIC, BIRTH TO 3 UNITS
54 Lecture hours
Formerly listed as CLDDV 293
Recommended for Success: Satisfactory completion of ENGL 50, CLDDV 103, or CLDDV 104 and CLDDV 105.
Develop, implement, and analyze creative experiences in the young child’s learning process. The fundamentals of planning, implementing, and evaluating curriculum for programs serving birth to age 3. Music and dance; movement and manipulation; drama; language; art; and music. Materials fee required. Lecture. Transfer: CSU

CLDDV 210—CREATIVE ACTIVITIES FOR YOUNG CHILDREN 3 UNITS
54 Lecture hours
Formerly listed as CLDDV 291
Recommended for Success: Satisfactory completion of ENGL 50, CLDDV 103, or CLDDV 104 and CLDDV 105.
Study of the developing child during the school-age years. Developmental characteristics of school-age children, influences on behavior and learning, and the fundamentals of planning and implementing curriculum in programs serving school-age children and their families. Field trips may be required. (A-F or P/NP) Lecture. Transfer: CSU

CLDDV 211—MATH AND SCIENCE CURRICULUM FOR YOUNG CHILDREN 3 UNITS
54 Lecture hours
Recommended for Success: Satisfactory completion of ENGL 50, CLDDV 103, or CLDDV 104 and CLDDV 105.
Study of math and science exploration by young children. Evaluation and development of appropriate math and science activities and materials. Discussion of variations in developmental levels, including children with special needs, and respect of cultural differences. Lecture. Transfer: CSU

CLDDV 212—MUSIC, BIRTH TO 3 UNITS
54 Lecture hours
Also offered as MUS 103
Recommended for Success: Before enrolling in this course, students are strongly advised to possess the following basic music skills: ability to read music (note names, melody and rhythm) and define and apply basic music vocabulary, or have successfully completed one or more of the following courses: MUS 101, MUSA 121, MUSA 161, MUSA 151, MUSA 153. Introduction to the methods of teaching music to children (birth to Kindergarten). Theories on the developing mind and the benefit of musical understanding to musicianship as well as overall child development. Kodaly, Orff, Dalcroze and other methods will be covered. Relationship of child development theory and developmentally appropriate practice. Study of classroom implementation process. First in a two course sequence. Field trips may be required. (A-F or P/NP) Lecture. Transfer: CSU

CLDDV 213—MENTOR TEACHER SEMINAR ½ UNIT
9 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.
Directors, site supervisors and other administrators of early childhood programs attend monthly seminars to explore issues related to professional duties. Seminars will include quality improvement efforts, advocacy, supervision and mentoring of colleagues. Seminar content will be individualized to meet the needs of participants. Four completions allowed. Field trips may be required. (Non-Graded course) Lecture. Transfer: CSU
CMPET - Computer Electronics

Dean: Pedro Mendez
Office: John Muir 258W
Phone: (209) 575-6332
Division website: www.mjc.edu/prospective/programs/teched/electech/
Instructors: Adrian De Angelis, Jim Howen, Timothy Vaughan

CMPET 206 — PERSONAL COMPUTER ASSEMBLY, UPGRADING & REPAIRING
3 UNITS
36 Lecture hours, 54 Lab hours. Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CMPSC 201 or concurrently enroll in CMPSC 201.
An introductory course in assembling, upgrading and repairing of personal computer systems. Emphasis on hands-on laboratory activities with personal computer hardware. Operating principles of computer subsystems and peripheral devices. Use of diagnostic software and hardware tools. Multi-use system setup and maintenance. Materials fee required. Field trips not required. (A-F or P/NP) Transfer: CSU

CMPET 210 — INTERMEDIATE PERSONAL COMPUTER SERVICING WITH A+ CERTIFICATION TRAINING
3 UNITS
36 Lecture hours, 54 Lab hours. Prerequisite: Satisfactory completion of CMPET 206 or CMPET/ELTEC 214.
Intermediate principles and practices of personal computer systems maintenance, upgrading and repair with an emphasis on preparation for A+ Computer Technician Certification administered by CompTIA. Contents include hardware and operating system setup, adding peripherals, communication and networking fundamentals, disaster recovery and supporting Windows NT. Lecture/Laboratory. Materials fee required. Transfer: CSU

CMPET 212 — DIGITAL PRINCIPLES AND CIRCUITS
3 UNITS
36 Lecture hours, 72 Lab hours. Prerequisite: Satisfactory completion of MATH 70 or concurrent enrollment. Also offered as ELTEC 212.
Introduction to digital circuits. Use and application of digital components in electronic devices and computers. Interfacing input and output devices to digital circuits. Introduction to programmable logic devices. Materials fee required. Lecture/Laboratory. Transfer: CSU

CMPET 214 — MICROPROCESSOR PROGRAMMING AND INTERFACING
4 UNITS
36 Lecture hours, 108 Lab hours. Prerequisite: Satisfactory completion of ELTEC 212/CMPET 212. Also offered as ELTEC 214.
Introduction to the structure and operation of microprocessors as controllers for today’s electronic devices and systems. Basic microprocessor hardware including memories, registers, counters, input/output ports, decoders, and arithmetic logic using the popular PIC RISC microcontroller. Machine language simulation and development on personal computers. Emphasis on interfacing to electronic hardware. Materials fee required. Lecture/Laboratory. (A-F Only) Transfer: CSU

CMPET 232 — INTRODUCTION TO PROGRAMMABLE LOGIC CONTROLLERS
2 UNITS
18 Lecture hours, 54 Lab hours. Recommended for Success: Satisfactory completion of ELTEC 232/CMPET 232 or equivalent course. Also offered as ELTEC 234.
Advanced study of programmable logic controllers and complete controller systems. Emphasis on component selection, design and operation of industry-like controller systems. Lecture/Laboratory. (A-F Only) Transfer: CSU

CMPET 234 — ADVANCED TOPICS IN PROGRAMMABLE LOGIC CONTROLLERS
2 UNITS
18 Lecture hours, 54 Lab hours. Recommended for Success: Satisfactory completion of ELTEC 232/CMPET 232 or equivalent course. Also offered as ELTEC 234.
Advanced study of programmable logic controllers and complete controller systems. Emphasis on component selection, design and operation of industry-like controller systems. Lecture/Laboratory. (A-F Only) Transfer: CSU

CMPET 269 — NETWORK + CERTIFICATION TRAINING LAB
1 UNIT
54 Lab hours. Concurrent Enrollment: Satisfactory completion of CMPSC 263. Recommended for Success: Satisfactory completion of any introductory computer course. Also offered as CMPSC 269.
Network + is quickly becoming the standard for introductory-level industry certification. Designed for those interested in a career in network support, this vendor-neutral certification takes the student through installing and configuring a network client. This laboratory course along with the CMPSC 263 course provides preparation for CompTIA's Network+ certification exam. Extensive network lab projects will be required. Field trips may be required. Laboratory. Materials fee required. Transfer: CSU

CMPET 302 — INTRODUCTION TO INDUSTRIAL NETWORKING WITH DEVICENET
1 UNIT
18 Lecture hours. Instruction on DeviceNet which is an open architecture system of smart sensors, controllers, and I/O all linked together on a common network and controlled by a PC that may or may not be networked to other PC's. Exploration of device level hardware and software. Lecture.

CMPGR — Computer Graphics Applications

Dean (Interim): John Williams
Division Office: Founders Hall 100
Phone: (209) 575-6129
Division website: mjc.edu/prospective/programs/bbss/
Instructors: Joel Hagen, Brian Sinclair

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED: NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
CMGR 201—ANIMATION: A GLOBAL VIEW ART IN MOTION 3 UNITS
54 Lecture hours
History of animation and its relationship to societies and cultures. Explores the development of animation from its earliest attempts in prehistoric times through the present day. Integration of technology. Strategies for production are presented, including animation techniques, design, layout, editing, timing, composition, color, lighting, music, sound effects, voice, story, concept, content, theme, historical relationship, social context, ethical context, purpose, audience, and philosophy. Field trips may be required. (A-F or P/NP) Lecture. Transfer: CSU General Education: (MIC—GE C)

CMGR 202—INTRODUCTION TO COMPUTER GRAPHICS 3 UNITS
36 Lecture hours, 54 Lab hours
Also offered as ART 102—Introduction to Computer Graphics
Recommended for Success: Before enrolling in this course, students are strongly advised to have a basic working knowledge of personal computers including: turning on and off a computer system correctly; starting programs, moving and resizing windows, the Start Menu, understanding how a computer is organized; manipulating a mouse, including selecting, double clicking, and dragging items; naming, saving, and deleting files; using portable flash memory and other common storage devices.
Introduction to computer graphics using various applications and tools. Topics explored include but are not limited to: basic compositional concepts, original image creation, photographic editing, scanning, printing, 3D-animation, digital sound editing, and digital drawing. (A-F or P/NP) Lecture/Lab. MJC Activities. Transfer: (CSU UC and CSU-GE C1)

CMGR 213—APPLIED COMPUTER GRAPHICS 3 UNITS
36 Lecture hours, 54 Lab hours
Also offered as ART 103
Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files. Concepts and techniques in computer graphics as related to fine and applied art applications. Three completions allowed. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: CSU

CMGR 214—DIGITAL CAPTURE FOR COMPUTER GRAPHICS 3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Satisfactory completion of any previous computer graphics course.
Explore digital capture and image editing techniques using such hardware devices as scanners, capture boards, digital cameras, and video. Students must have access to a digital camera. Field trips may be required. Lecture/Laboratory. Materials fee required. Transfer: CSU

CMGR 215—BUSINESS PRESENTATION GRAPHICS 3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files. The use of a computer as a vehicle for preparing, producing, and controlling the presentation of visuals within the business environments. Hardware and peripheral equipment as well as commercially available software will be covered. Emphasis is placed on the use of existing commercially available software with “hands-on” experience being provided in an open lab environment. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: CSU (CC CMPSC I1)

CMGR 217—COMPUTER ILLUSTRATION SOFTWARE 3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files. Introduction to illustration software as applied to visual and data presentations. Explores the techniques and tools used by artists, designers, and illustrators to produce artwork for print, publishing, advertising, and various page-layout applications; text and graphics will be integrated into documents and publications typically used in a range of computer graphics disciplines. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: CSU

CMGR 219—COMPUTER GRAPHICS PORTFOLIO REVIEW 1 UNIT
18 Lecture hours
Also offered as ART 119
Recommended for Success: Before enrolling in this course, students are strongly advised to have a basic working knowledge of personal computers including: turning on and off a computer system correctly; starting programs, moving and resizing windows, the Start Menu, understanding how your computer is organized; manipulating a mouse, including selecting, double clicking, and dragging items; naming, saving, and deleting files; using portable flash memory and other common storage devices.
Prepares the student majoring in or receiving a certificate in Computer Graphics, Commercial, or Fine Art with the necessary visual and business skills to develop a portfolio; emphasizes the creative and applied business needs for individuals entering their respective professional field. Field trips may be required. (A-F Only) Lecture. Transfer: CSU

CMGR 225—3D GRAPHICS AND ANIMATION 3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have a basic working knowledge of personal computers including: turning on and off a computer system correctly; starting programs, moving and resizing windows, the Start Menu, understanding how a computer is organized; manipulating a mouse, including selecting, double clicking, and dragging items; naming, saving, and deleting files; using portable flash memory and other common storage devices.
Graphic and animation techniques utilizing microcomputers and 3D software. 3D modeling, 3D animation, scene composition, materials, editing, object and camera movement, character development, and storyboarding will be explored. Students will have intensive hands-on experience with IBM or MAC graphic systems and related peripheral devices. Three completions allowed. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: CSU

CMGR 226—3D GRAPHICS AND ANIMATION 2 3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have successfully completed CMGR 225.
Continued development of 3D modeling and animation skills. Storyboarding, integration of 3D software with other industry standard applications. Finished animation production techniques. Three completions allowed. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: CSU

CMGR 235—BEGINNING PHOTOSHOP 3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as Image Manipulation Software
Recommended for Success: Before enrolling in this course, students are strongly advised to have satisfactorily completed CMGR 202/ART 102.
Introduction to the techniques and technology of digital imaging and image manipulation software. Three completions allowed. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: CSU

CMGR 236—ADVANCED PHOTOSHOP 3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as Advanced Photoshop Applications
Recommended for Success: Before enrolling in this course, students are strongly advised to have satisfactorily completed CMGR 235.
Advanced skills in Adobe Photoshop including layout and publication, image processing, fine art and illustration. Three completions allowed. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: CSU

CMGR 252—DESKTOP PUBLISHING FOR COMPUTER GRAPHICS 3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files. Desktop publishing concepts with hands-on training in the use of computers, printers, scanners, and various page-layout applications; text and graphics will be integrated into documents and publications typically used in a range of computer graphics disciplines. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: CSU

CMGR 262—EXPLORING THE WORLD WIDE WEB 1 UNIT
18 Lecture hours, 18 Lab hours
Introduction to the World Wide Web. Use of a graphical browser for accessing, viewing, and saving Web documents. Use of E-mail, search engines and bookmarks. Current and emerging Web technologies, and the impact on education, business, organizations, and our personal and professional lives. Lecture/Laboratory. Materials fee required. MJC Activities. Transfer: CSU (CC CMPSC 10)

CMGR 263—INTERNET LITERACY 3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files. Provides the conceptual background and the online skills needed to become Internet literate. Covers: Internet services—e-mail, listserv, newsgroups, FTP, telenet and the World Wide Web (WWW). Emphasis will be placed on the WWW, types of access (ISP), usage, software (browsers and other support software) and Internet etiquette in a global environment. Introduction to publishing and multimedia. Usage of search engines to conduct research and copyright issues and bibliographic style. Reflects on the impact of emerging technologies on the future of commerce and communications as well as societal issues. (A-F or P/NP) Lecture/Lab. Transfer: CSU
CMPGR 264—PUBLISHING ON THE WORLD WIDE WEB  3 UNITS
36 Lecture Hours, 54 Lab Hours,
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CMPGR 262.
Development, components, and impact of the World Wide Web. Publishing of personal and professional documents for access on the Web. Use of Web browsers and supporting applications including editors, converters, graphical generators, and manipulators. Coverage of hypertext (HTML) and portable document format coding. Search tools and strategies for information and resource retrieval, and downloading files from FTP sites. Introduces design concepts. Extensive hands-on experience. Field trips are not required. (A-F or P/NP) Transfer: (CSU)

CMPGR 265—MULTIMEDIA ON THE WORLD WIDE WEB  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have satisfactorily completed CMPGR 264.
Intermediate course covering multimedia components of the World Wide Web. Development with animation, sound, and video. Emphasis on further development of programming techniques and skills for advanced features for web pages. Extensive hands-on lab experience. Field trips may be required. (A-F or P/NP) Lecture/Lab Transfer: CSU General Education: (MJC-GE:D2)

CMPGR 266—DREAMWEAVER IN WEB SITE DESIGN  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files.
Macromedia’s Dreamweaver web design software, including templates, libraries, Cascading Style Sheets, and FTP. Strategies for creating intuitive and accessible web sites such as audience considerations, site map and navigational building, and testing. Two completions allowed. (A-F or P/NP) Lecture/Lab Transfer: CSU

CMPGR 267—FLASH: WEB GRAPHICS AND ANIMATION 1  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Satisfactory completion of CMPGR 202 or ART 102.
Introduction to Macromedia’s Flash. Covers the tools and concepts of Flash and its many interactive possibilities and functions, including drawing, image, text, animation, sound, and action-scripting integration. Explores the strategies for creating intuitive and accessible Flash productions from start-to-finish, such as audience considerations, site map and navigation building, and the effective use of content and animation, output, optimization and testing. Lecture/Laboratory. Materials fee required. Transfer: CSU (CC CMPSC 19)

CMPGR 268—FLASH: WEB GRAPHICS AND ANIMATION 2  3 UNITS
36 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of CMPGR 268
In-depth look into how Flash is effectively used by real-world interactive designers and developers. Explore advanced Flash concepts and tools such as dynamic text, tell-targeting movie clips, drop-down menus, scrolling text, scriptable masks, embedded video, streaming and event sound, and the integration of Flash with HTML. Gain an understanding of how to use Action Scripting for more powerful interactivity and animation by exploring the use of variables, properties, expressions, functions, and operators. Bring together the Flash methods learned into the creation of a final, online portfolio presentation. Lecture/Laboratory. Materials fee required. Transfer: CSU

CMPGR 269—DESKTOP VIDEO ANIMATION  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate basic computer skills such as creating and navigating folders and files.
Fundamental skills in animation and special effects concepts and techniques utilizing computers and digital video media. Three completions allowed. (A-F or P/NP) MJC Activities. Lecture/Lab. Transfer: CSU

CMPGR 284—INTRODUCTION TO MULTIMEDIA  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Satisfactory completion of Basic Computer literacy course such as CMPSC 201.
Introduction to multimedia software and hardware on microcomputers. Students will have intensive “hands on” experience working with a variety of media such as text, numbers, sound, music, graphics, animation and video. Techniques of media capture, generation and editing and subsequent interactive multimedia development will be explored. Field trips may be required. Lecture/Laboratory. Materials fee required. Transfer: CSU

CMPGR 286—MULTIMEDIA ON THE WORLD WIDE WEB  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CMPGR 262.
Development, components, and impact of the World Wide Web. Publishing of personal and professional documents for access on the Web. Use of Web browsers and supporting applications including editors, converters, graphical generators, and manipulators. Coverage of hypertext (HTML) and portable document format coding. Search tools and strategies for information and resource retrieval, and downloading files from FTP sites. Introduces design concepts. Extensive hands-on experience. Field trips are not required. (A-F or P/NP) Transfer: (CSU)

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED: NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
CMPSC (Computer Science)

Dean (Interim): John Williams
Division Office: Founders Hall 100
Phone: (209) 575-6129
Division website: mjc.edu/prospective/programs/bbss/
Instructors: Brian Larson, Dale Phillips, Kathleen Short, Chris Vaughn, Lloyd Vaught, John Zamora

**CMPSC 103—SYMBOLIC LOGIC 3 UNITS**
54 Lecture hours
Also offered as PHILD 103.
An introduction to modern deductive logic; includes sentential and predicate logic with identity theory and definite descriptions. Lecture. Not offered every semester. Transfer: (CSU, UC) General Education: (MJC-GE: D2)(CSU-GE: A3)

**CMPSC 201—GENERAL COMPUTER LITERACY 3 UNITS**
36 Lecture hours, 54 Lab hours
Survey of the functions and uses of computers in business, education, industry, and science, with emphasis on the personal computer. Study of computers and peripheral equipment as integrated systems. Exploration of the impact of computers on society. Introduction to problem-solving and applications programming techniques. Experience with popular internet and application packages on the laboratory computers. Three completions allowed. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education: (MJC-GE:D2)

**CMPSC 202—BUSINESS INFORMATION SYSTEMS 3 UNITS**
36 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of CMPSC 201 and BUSAD 201 or BUSAD 310.
Introduction to design, development, and use of information system models to improve managerial decision making. Study of information systems hardware and software; advanced computer codes; systems analysis and planning, systems security, application development using decision support systems; and expert systems. Lab work will focus on Internet research and advanced spreadsheet, database, and word processor functions for solutions to business problems. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)

**CMPSC 203—TECHNICAL COMPUTER LITERACY 3 UNITS**
36 Lecture hours, 54 Lab hours
Concepts and techniques for using microcomputer applications. Instruction and extensive practice in Windows, word processing, spreadsheets, database management, internet basics, file transfer between applications, and related auxiliary applications. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education: (MJC-GE: D2)

**CMPSC 204—INTRODUCTION TO PROGRAMMING 3 UNITS**
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 90.
First course in computer programming for students with little or no programming experience. General computer literacy issues useful for technicians such as computer hardware, software development, operating systems, and telecommunications. Beginning problem-solving analysis, documentation, algorithm design, control structures, as well as program coding using an appropriate beginning programming language. Data manipulation, logic, looping, program testing, and program maintenance will be stressed. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)

**CMPSC 205—PROBLEM SOLVING AND PROGRAMMING 1 4 UNITS**
54 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of CMPSC 204.
First course for Computer Science transfer majors; but open to all students. Emphasizes object-oriented programming, algorithmic design, and problem analysis skills for computer science. Software engineering skills will be emphasized. Solutions will be implemented using a high-level object-oriented programming environment such as C++, C#, or JAVA. Extensive programming projects demonstrating problem solving and implementation skills will be assigned throughout the semester. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education: (MJC-GE: D2)

**CMPSC 206—INTRO TO UNIX/LINUX SYST & PROGRAMMING 3 UNITS**
36 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of CMPSC 204.
Introduction to the UNIX operating system using Linux. Coverage will include using UNIX shells, commands, the role of the system administrator, the UNIX file system, editors, file processing, shell programming, utilities, PERL and CGI programming, C and C++ programming, and recent developments in UNIX and the X-Window graphical user interface. Extensive hands-on experience using UNIX operating system and programming within the UNIX environment. Five completions allowed. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education: (MJC-GE: D2)(CSU-GE: B4) (IGETC:2A)

**CURRICULUM CHANGES "IMPACT" PROOF**
INACTIVATED- NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER I0 REVIEW
CMPS 264 — WINDOWS SERVER OS  3 UNITS  
54 Lecture hours, 54 Lab hours  
Formerly listed as CMPS 264 - Windows Server Operating System. Includes server hardware, installation, configuration, clients, management, network protocols, active directory and security, remote access and virtual private networks, interoperability, Internet and intranets, monitoring, tuning, and troubleshooting. Hands-on computer assignments required. Field trips may be required. (A-F or P/NP) Lecture/Lab Transfers: CSU General Education: (MJC-GE: D2)

CMPS 279 — UNDERSTANDING DATA COMMUNICATIONS  3 UNITS  
54 Lecture hours, 26 Lab hours  
How data communications systems and their various hardware and software components work. Includes communication between personal computer systems, database servers, electronic bulletin boards, and the Internet. Hands-on computer assignments required. Lecture/Laboratory. Materials fee required. Transfers: CSU

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

CMPS 276 — WEB DATABASE DEVELOPMENT  3 UNITS  
36 Lecture hours, 54 Lab hours  
Formerly listed as CMPS 276 - Introduction to Data Warehousing. Introduction to Web Database development. Emphasizes heterogeneous database design, optimization and reporting in a web database environment. This class will use industry standard tools and techniques with a variety of databases and programming tools. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture/ Transfers: CSU General Education: (MJC-GE: D2)

CMPS 278 — SPREADSHEET SOFTWARE  3 UNITS  
36 Lecture hours, 54 Lab hours  
Recommended for Success: Any introductory computer class. Introduction to spreadsheet software. Spreadsheet analysis, design, testing, and documenting will be covered. Data entry, data management, graphing and keystroke macros will be emphasized. Applications in various areas will be explored with emphasis in business, professional and educational use. Hands-on experience using a microcomputer. Emphasis on Microsoft Excel or similar spreadsheet application. Lecture/Laboratory. Materials fee required. Transfer: CSU General Education: (MJC-GE: D2)

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

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

CMPS 291 — WINDOWS PROGRAMMING WITH VISUAL STUDIO  4 UNITS  
54 Lecture hours, 54 Lab hours  
Formerly listed as CMPS 291 - Windows Programming With Visual C++. Prerequisite: Satisfactory completion of CMPS 265. Windows Programming using the Microsoft Visual Studio environment. Review of object-oriented programming and problem solving concepts. Emphasis on designing user applications, event-driven programming, debugging and exception handling, object-based file handling, database access, web-based and smart device applications, and advanced programming techniques. Hands-on computer programming projects will be required. Field trips may be required. (A-F or P/NP) Lecture/Lab Transfers: CSU General Education: (MJC-GE: D2)
CMPSC 294—COMPUTER SCIENCE FINAL PROJECT 3 UNITS
18 Lecture hours
Introduction to the basic elements of routing and uses of fluid milk throughout the dairy plant. Demonstration of how fluids are utilized. Demonstration of how fluid flow is measured and controlled. Demonstration of how fluid flow is controlled. Demonstration of how fluid flow is monitored and controlled. Demonstration of how fluid flow is monitored and controlled.
Prerequisite: Varies with topic.
Participation in discussion, analysis, and evaluation of a special topic in computer science, micro-computer applications, and related technologies. Topic to be announced in class schedule. Twelve maximum units in any combination. Field trips may be required. Lecture. Materials fee required.
Transfer: CSU

COLSK 100—FOUNDATION FOR FIRST YEAR COLLEGE SUCCESS 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and READ 82.
Provides success strategies to enhance academic and lifelong learning skills for first year college students. Exploration of topics such as motivation and attitudes, values, goal setting, decision-making processes, critical and creative thinking, personal health, interpersonal communication, behavioral expectations and etiquette, personality theories, cultural diversity, information & technology competence, as well as techniques for maximizing the ability to succeed as a lifelong learner. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MIC-GE E) (CSU-GE E)

DAIND 301—GOOD MANUFACTURING PRACTICES AND SANITATION 1 UNIT
18 Lecture hours
Introduction to dairy plant sanitation, good manufacturing practices, guidelines and implementation. Introduction to chemical, physical and mechanical cleaning of the dairy plant and associated equipment. Field trips required. Two completions allowed. Lecture. (A-F Only)

DAIND 302—FLUID STREAM 1 UNIT
18 Lecture hours
Introduction to dairy plant sanitation, good manufacturing practices, guidelines and implementation. Introduction to chemical, physical and mechanical cleaning of the dairy plant and associated equipment. Field trips required. Two completions allowed. Lecture. (A-F Only)

DAIND 303—INDUSTRIAL SAFETY 1 UNIT
18 Lecture hours
Introduction to industrial safety as it relates to a dairy processing facility. Topics to be covered: illness and injury prevention, confined space entry, lock-out, tag-out programs, hazard communication programs, and industrial lift programs. Field trips required. Two maximum completions. Lecture. (A-F Only)

DAIND 304—SENSORY EVALUATION 1 UNIT
18 Lecture hours
Develop skills for sight, taste, smell and touch, in the evaluation of various dairy products. Course content follows the California Agriculture Teaching Association Curricular Code used for Career Development Events—dairy product evaluation. Applicable to the associate degree. Field trips required. Two maximum completions. Lecture. (A-F Only)

DAIND 305—HACCP AND FOOD SAFETY 1 UNIT
18 Lecture hours
Introduction to hazard analysis critical control point programs including the importance of HACCP and the identification of critical control points. The class will demonstrate how to design and implement an HACCP program. Field trips required. Two maximum completions. Lecture. (A-F Only)

DAIND 306—DAIRY INDUSTRY EMPLOYABILITY SKILLS 1 UNIT
18 Lecture hours
Resume preparation, interviewing skills, and job search techniques that are unique to the dairy processing industry. Field trips required. Two maximum completions. Lecture. (A-F Only)

DAIND 307—PROCESS EQUIPMENT AND ENGINEERING 1 UNIT
18 Lecture hours
Introduction and identification of equipment used in the processing facility. Cleaning, sanitizing and maintenance of processing equipment. Performance of equipment breakdowns for inspection. Direction of required regulatory licensing. Field trips required. Two maximum completions. Lecture. (A-F Only)

DAIND 308—LABORATORY SKILLS 1 UNIT
18 Lecture hours
Demonstration and analysis of common laboratory tests. Identification of various equipment used in the dairy lab. Proper safety and chemical disposal. Designed for the plant technician, not a laboratory technician. Field trips required. Two maximum completions. Lecture. (A-F Only)

DAIND 309—DAIRY PRODUCTS AND MARKETING 1 UNIT
18 Lecture hours
Introduction to the standards of identifying milk, dairy foods and elementary dairy products. Marketing and handling will be covered. Field trips required. Two maximum completions. Lecture. (A-F Only)
DAIND 310 — TRANSPORTATION OF DAIRY PRODUCTS 1 UNIT
18 Lecture hours
Introduction to aspects of raw milk pick-up, routing to the milk plant, loading and transporting of finished packaged dairy products. Field trips required. Two completions allowed. Lecture. (A-F Only)

DAIND 311 — CHEESE AND WHEY PROCESSING 1 UNIT
18 Lecture hours
Introduction to aspects in the art of cheese making. Elementary techniques of whey processing. Field trips required. Two completions allowed. Lecture. (A-F Only)

DAIND 312 — WAREHOUSING/DRY AND REFRIGERATED 1 UNIT
18 Lecture hours

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

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

EASCI 161 — EARTH SCIENCE 4 UNITS
54 Lecture Hours, 54 Lab Hours,
An introductory study of the several branches of earth science: geology, oceanography, meteorology, and astronomy. Covers topics including natural resources, minerals, rocks, volcanism, plate tectonics, earthquakes, weathering, erosion, geological time, fresh water, ocean water, ocean currents, the ocean floor, atmosphere, clouds, storms, the sun, the moon, and the solar system. Field trips are required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

EASCI 162 — INTRODUCTION TO OCEANOGRAPHY 4 UNITS
54 Lecture Hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EASCI 161 and satisfactorily complete MATH 70.
An introductory study of oceanography, the study of the world’s oceans. Topics include the ocean’s role in the earth system, marine geography, ocean basins and plate tectonics, ocean water, ocean chemistry, marine sediments, ocean-atmosphere interaction, ocean currents, ocean waves and tides, coastal processes, marine ecosystems, ocean life, ocean and climate, oceanographic techniques, and ocean stewardship. Lab activities emphasize gathering and analysis of oceanographic data to understand and predict oceanographic phenomena. Field trips are required. (A-F or P/NP) Lecture/Lab Transfer: (CSU, UC) General Education: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

ECON (Economics)
Dean (Interim): John Williams
Division Office: Founders Hall 100
Phone: (209) 575-6129
Division website: www.mjc.edu/prospective/programs/bbss/
Instructors: Rose La Mont

ECON 101 — PRINCIPLES OF MACROECONOMICS 3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to have college-level composition skills.
Introduction to macroeconomic theory in the context of managed market economy. Covers basic concepts in economics, particularly those relating to aggregate economic analysis, such as scarcity, trade-offs, and opportunity costs. Topics include: market systems, aggregate measures of economic activity, macroeconomic equilibrium, money and financial institutions, monetary and fiscal policy, international economics, and economic growth. Lecture. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE:B)(CSU-GE:D2)(IGETC: 4B)

ECON 102 — PRINCIPLES OF MICROECONOMICS 3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to have college-level composition skills.
An introductory course focusing on individual economic decision-making. Topics include scarcity, opportunity costs, comparative advantage, market structure and market failure, elasticity, cost theory, price and output determination under various market structures and factor markets. Related topics such as international trade, public choice, income distribution, externalities and government regulation may be included. Lecture. Transfer: (CSU, UC) General Education: (MJC-GE:B)(CSU-GE:D2)(IGETC: 4B)

ECON 115 — ECONOMIC HISTORY OF THE UNITED STATES 3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of ENGL 101
Recommended for Success: Before enrolling in this course, students are strongly advised to have college level composition skills.
Analysis of origins and development of business, labor and agriculture from the colonial period to the present. Emphasis on the federal government’s part in the development and regulation of business, labor and agriculture, the government’s role in the national economic process. Lecture. Transfer: (CSU, UC) General Education: (MJC-GE:B)(CSU-GE:D2, D6)(IGETC: 4B, 4F) (Al-Group A)
In this program the student will develop skills in plant recognition and use, nursery practices, and landscape design sufficient to enter the landscape or nursery business or to transfer to a university. Contact the division office in the Agriculture Building for advising assistance.

EHS 50—BEGINNING ORNAMENTAL GARDENING  2 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as OH 50
Preparation for the fundamentals of indoor and outdoor gardening, planting for patios and balconies, gardening in containers and simple landscaping. Designed for anyone interested in gardening, regardless of prior experience or size of garden. A series of 30 television programs supported by coordinating textual material and by additional printed materials that are optional. Field trips may be required. Lecture.

EHS 51—ENVIRONMENTAL HORTICULTURE PREPARATION  3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as OH 51
A preparatory course in environmental horticulture, emphasis on nursery operation including structures and layout, seeding, transplanting, planting, balling, canning, fertilizing, pest control, plant diseases and abnormalities. Preparation and use of propagating and planting mediums. Use and maintenance of common tools and equipment. Saturday field laboratory may be required. Field trips required. Lecture/Laboratory.

EHS 56—PREPARATOR Y PARK AND LANDSCAPE MAINTENANCE  3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as OH 51
Preparation for training in installation of plant materials and materials of parks and other planted areas and in skills required for students to qualify as technicians. Special interest directed to provide specific skills in such areas as forestry, highway maintenance, city, state and federal parks. (A-F or P/NP) Field trips required. Lecture/Laboratory.

EHS 58—PREPARATORY FLORAL DESIGN  3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as OH 58
A preparatory course in commercial floristry teaching basic theory, techniques, and skills currently practiced in the floral design industry. Construction of basic floral products for resale; cut flower processing and industry sales practices. Field trips required. Lecture/Laboratory. Materials fee required.

EHS 61—PREPARATOR Y ORNAMENTAL PLANT IDENTIFICATION — 3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as OH 61
Preparation in the identification, growth habits, culture and ornamental use of house plants, vines, ground covers, perennials, and small shrubs adapted to climates of California central valleys. One Saturday laboratory required. Field trips required. Lecture/Laboratory.

EHS 62—PREPARATOR Y ORNAMENTAL SHRUB AND TREE IDENTIFICATION  3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as OH 62
Preparation in the identification, growth habits, culture and use of large shrubs and trees adapted to climates of California central valleys. Field laboratories, including some on Saturdays, are required. Field trips required. Lecture/Laboratory.

EHS 65—INTRODUCTORY LANDSCAPE PLANNING AND DESIGN — 2 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as OH 65
Preparation in the planning and designing of landscaped areas. Emphasis on location of lawn, trees, shrubs, walks, driveways, patios, planters, and other landscape structures for home and park. Field trips required. Lecture/Laboratory.

EHS 100—ENVIRONMENTAL GARDENING  3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as OH 100
Plants used in the landscape; basic landscape design principles and plant propagation techniques. Emphasis on the place of horticultural crops in the economy and the role of plants in the environment. Discussion will center on the physiology of plants and their use and care. Emphasis will be on the practical application of horticultural principles. Field trips required. Lecture/Laboratory. (A-F Only) Transfer: (CSU, UC)

EHS 201—PLANT IDENTIFICATION AND USAGE 1  3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as OH 201-Plant Materials and Usage 1
Recommended for Success: Satisfactory completion of EHS 210 and/or PLSC 200.
Identification, growth habits, culture and ornamental use of landscape and indoor plants adapted to climates of California. Plants emphasized will come from the current California Association of Nurserymen & Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) Certification Tests Plant Lists. Covers those plants best observed and studied in the spring of the year. Field trips required. Will require Saturday labs. Lecture/Laboratory. (A-F Only) Transfer: (CSU, UC)

EHS 202 PLANT IDENTIFICATION & USAGE 2  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EHS 210 and/or satisfactorily complete PLSC 200.
Identification, growth habits, culture and ornamental use of landscape and indoor plants adapted to climates of California. Plants emphasized will come from the current California Association of Nurserymen & Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) Certification Tests Plant Lists. Covers those plants best observed and studied in the fall of the year. Will require Saturday labs. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU, UC)

EHS 210—INTRODUCTION TO ENVIRONMENTAL HORTICULTURE SCIENCE  3 UNITS
36 Lecture hours, 54 Lab hours
A general course in environmental horticulture with emphasis on nursery operations, landscaping, turf management, and floral industries. Topics include basic botany, cultural practices, propagation, structures and layout, pest management, planting, container gardening and house plants; floral design, plant identification, turfgrass installation and care, and survey of career opportunities. Saturday labs required. Field trips are required. (A-F Only) Lecture/Lab Transfer: (CSU, UC)

EHS 212—FLORICULTURE CROP PRODUCTION  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Satisfactory completion of EHS 201 and/or PLSC 200.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EHS 201 and/or satisfactorily complete PLSC 200.
Analysis, description and operation of greenhouses and other structures and facilities as they relate to floriculture. Included are: relationships of light, temperature, moisture, aeration, humidity, and fertility of floricultural crops; identification and investigation of major greenhouse grown crops including foliage plants, flowering potted plants, bedding plants, cut flowers, color and specialty crops; and planning and implementing several growing plans for floriculture plants and products. Field trips required. Lecture/Laboratory. (A-F Only) Transfer: CSU

EHS 215—LANDSCAPE DESIGN  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have successfully completed EHS 201 and EHS 202.
The study and implementation of the art and science of landscape design, including principles of design, the design process, drafting, graphics, and presentation methods. Project emphasis is placed upon residential and small commercial sites. Field trips are required. (A-F Only) Lecture/ Lab Transfer: CSU
EHS 220—TURFGRASS MANAGEMENT  
36 Lecture hours, 54 Lab hours  
Maintenance and management of turfgrasses that include sports athletic fields, golf courses, parks, cemeteries, commercial, and residential lawns. Discussion will focus on identification, installation, cultural requirements and maintenance practices. Field trips are required. (A-F or P/NP) Lecture/ Lab. Transfer: (CSU)

EHS 235—PLANT PROPAGATION/PRODUCTION  
36 Lecture Hours, 54 Lab Hours, Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PLS 200 with a minimum grade of C or better satisfactorily complete EHS 210 with a minimum grade of C or better and/or.  
Plant propagation and production practices with emphasis on nursery operations including sexual and asexual reproduction, planting, transplanting, fertilizing, planting pest and disease control, structures and site layout. Preparation and use of propagating and planting mediums. Use and maintenance of common tools and equipment. Regulations pertaining to plant production. Field trips are required. (A-F Only) Transfer: (CSU)

EHS 250—LANDSCAPE IRRIGATION  
36 Lecture hours, 54 Lab hours, Recommended for Success: Satisfactory completion of EHS 210.  
Formerly listed as OH 250—Urban Irrigation Practices.  
Prepares students to design, install and maintain a water efficient landscape irrigation system. Topics include water supply, basic hydraulics, component identification and terminology, system layout, pipe sizing; types of heads, valves, controllers. Field trips may be required. Lecture/Laboratory. (A-F Only) Transfer: CSU

EHS 276—LANDSCAPE CONSTRUCTION AND INSTALLATION  
36 Lecture hours, 54 Lab hours, Recommended for Success: Satisfactory completion of EHS 210.  
Formerly listed as OH 276—Park and Landscape Maintenance.  
Fundamentals of landscape construction, including soil preparation, paving and construction materials, hand and power tool use, turf and plant installation, plan reading, estimating and bidding preparation; also covers local codes and state requirements and prepares students to pass the C-27 Landscaping Contractor’s License exam. Field trips required. Lecture/Laboratory. (A-F Only) Transfer: CSU

EHS 278—FLORAL SHOP MANAGEMENT  
36 Lecture hours, 54 Lab hours, Two completions allowed.  
The customer, consultations, pricing and use of computers and other business machines. Construction and pricing; floral orders and wire services; floral delivery; purchasing, marketing and inventory control. Two completions allowed. Laboratory/Other Conjunction with practicing flower shop manager— MJC nursery or shop site. Field trips required. (A-F Only)

EHS 281—ADVANCED FLORAL DESIGN  
36 Lecture hours, 54 Lab hours, Prerequisite: Satisfactory completion of EHS 280.  
Formerly listed as OH 281—Commercial Floristry Advanced Floral Design.  
Provides insight into the business and management skills needed to run a successful floral shop. Flower shop involvement required. Field trips required. Two completions allowed. Lecture/Laboratory. Materials fee required. (A-F Only) Transfer: CSU

EHS 282—FLORAL SHOP MANAGEMENT  
36 Lecture hours, 54 Lab hours, Prerequisites: Satisfactory completion of EHS 280 and EHS 281.  
Formerly listed as OH 282.  
Provides insight into the business and management skills needed to run a successful floral shop. Flower shop involvement required. Field trips required. Two completions allowed. Lecture/Laboratory/Other. (A-F Only) Materials fee required. Transfer: CSU

EHS 291—ENVIRONMENTAL HORTICULTURE  
36 Lecture hours, 54 Lab hours,  
Application of environmental horticulture science teaching strategies. Construction of an action plan incorporating environmental horticulture science curriculum in an applied setting, such as a school garden, Exploration of science curriculum standards as they relate to teaching strategies applied in the classroom. May be completed up to two times. Field trips required. (A-F or P/NP) Lecture. Transfer: CSU

EHS 292—COMMERCIAL FLORISTRY PRACTICUM  
36 Lecture Hours, 54 Lab Hours,  
Prerequisites: Satisfactory completion of EHS 280, 281, 282.  
Recommended for Success: Satisfactory completion of EHS 210, 212.  
Formerly listed as OH 292.  
Involvement in all areas of, and taught in, a retail flower shop. Includes principles of small business management, including personnel, physical plant and financial management, floral design, construction, and pricing; floral orders and wire services; floral delivery; purchasing, marketing and inventory control. Two completions allowed. Laboratory/Other Conjunction with practicing flower shop manager— MJC nursery or shop site. Field trips required. (A-F Only)

EHS 383—COMMERCIAL FLORISTRY PRACTICUM  
36 Lecture Hours, 54 Lab Hours,  
Prerequisites: Satisfactory completion of EHS 280, 281, 282.  
Recommended for Success: Satisfactory completion of EHS 210, 212.  
Formerly listed as OH 292.  
Involvement in all areas of, and taught in, a retail flower shop. Includes principles of small business management, including personnel, physical plant and financial management, floral design, construction, and pricing; floral orders and wire services; floral delivery; purchasing, marketing and inventory control. Two completions allowed. Laboratory/Other Conjunction with practicing flower shop manager— MJC nursery or shop site. Field trips required. (A-F Only)

EHS 390—NURSERY INDUSTRY SKILLS  
18 Lecture hours, 315 Lab hours  
A repeatable short course in Ornamental Horticulture that covers all skill aspects of the wholesale and retail nursery business. Also included are excerpts from plant identification, turf, and landscape design. Six maximum completions. Field trips may be required. Lecture: (A-F Only)
ELTEC 212—DIGITAL PRINCIPLES AND CIRCUITS  
36 Lecture hours, 72 Lab hours  
Also offered as CMPET 212  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 70 with a minimum grade of C or better or concurrent enrollment.  
Introduction to digital circuits. Use and application of digital components in electronic devices and computers. Study of number systems, basic logic gates, counters, shift registers, A/D and D/A interfaces, and memories. Special emphasis on interfacing digital circuits to real-world input and output devices. Introduction to programmable logic devices. Prepares students for microprocessors and PLCs. This course is approved by the State of California for the DAS Electricians Apprenticeship program. Materials Fee Required. (A-F or P/NP) Lecture/Lab. Transfer: CSU

ELTEC 214—MICROPROCESSOR PROGRAMMING AND INTERFACING  
36 Lecture hours, 108 Lab hours  
Also offered as CMPET 214  
Recommended for Success: Before enrolling in this course, students are strongly advised to successfully complete ELTEC/CMPET 212 Digital Electronics.  
Introduction to the structure and operation of microprocessors as controllers for today's electronic devices and systems. Basic microprocessor hardware including memories, registers, counters, input/output ports, decoders, and arithmetic logic using the popular PIC RISC microcontroller. Emphasis on interfacing to electronic hardware. Materials Fee Required. (A-F Only) Lecture/Lab. Transfer: CSU

ELTEC 221—INSTRUMENTATION DEVICES AND SYSTEMS  
Also offered as: INTEC – 221: Instrumentation Devices and Systems, MFGA – 221: Instrumentation Devices and Systems  
36 Lecture Hours, 54 Lab Hours,  
Prerequisite: Satisfactory completion of ELTEC 208.  
An introduction to industrial instrumentation devices and systems: Principles and operation of mechanical and electrical transducers. Analysis of industrial instrumentation and control systems. Course is approved by the State of California for the DAS Electricians Training program. Field trips are not required. (A-F or P/NP) Transfer: (CSU)

ELTEC 223—INDUSTRIAL ELECTRICAL COMPONENTS AND CONTROL DEVICES  
36 Lecture hours, 54 Lab hours  
Also offered as INTEC 223  
An introduction to common components and control devices found in the manufacturing and processing industry. Content includes basic terminology, component identification, manufacturer's specifications, and maintenance procedures for the components and devices. Lecture/Laboratory. Materials Fee required. (A-F Only) Transfer: CSU

ELTEC 226—MOTORS, CONTROLS AND CONTROLLERS  
36 Lecture hours, 54 Lab hours  
Prerequisite: Satisfactory completion of ELTEC/INTEC 208.  
Also offered as INTEC 226  
Introduction to AC and DC motors and control systems. Emphasis on system troubleshooting. Use and programming of AC and DC systems. Lecture/Laboratory. (A-F Only) Transfer: CSU

ELTEC 229—COMMERCIAL AND INDUSTRIAL WIRING  
3½ UNITS  
36 Lecture hours, 81 Lab hours  
Also offered as INTEC 229  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete INTEC 225 or AGM 225 and (INTEC 208 or ELTEC 208).  
Essential insights and practices in Commercial and Industrial Wiring that develop skills for the electrical trade. Topics include the application of basic concepts in the design of electrical systems, implementation of accepted trade practices used in installations, and common troubleshooting techniques. Field trips may be required. Materials fee required. (A-F Only) Lecture/Lab. Transfer: CSU

ELTEC 230—BLUEPRINT READING  
1 UNIT  
9 Lecture hours, 27 Lab hours  
Also offered as INTEC 230.  
Recommended for success: Before enrolling in this course, students are strongly advised to satisfactorily complete AGM 225 and (ELTEC/INTEC 229) and (ELTEC/INTEC 226).  
Fundamental concepts of blueprint reading for electricians applicable in any field. Topics include: construction-related blueprints (residential, commercial and industrial), machinery, automation, electronics, associated systems (hydraulic, pneumatic, communication.) Lecture/Laboratory. (A-F Only) Transfer: CSU
EMS (Emergency Medical Service)

Dean: Maurice McKinnon, Ed D  
Division Office: Regional Fire Training Center, 1220 Fire Science Lane  
Phone: (209) 575-5706

EMS 350—FIRST RESPONDER WITH HEALTHCARE PROVIDER CPR  3 UNITS  
54 Lecture hours  
An entry-level course designed for firefighters and other emergency workers who will respond to medical emergencies ahead of ambulance transportation. Focuses on stabilization of ill or injured patients prior to arrival of more advanced life support. This course meets the basic requirements for most volunteer fire agencies as well as some paid fire departments. Materials fee required.  
Student may repeat if required by regulation.  
(A-F Only) Lecture.  
Transfer: (CC EMS 157)

EMS 380—BASIC ECG INTERP/INTRO TO CARDIAC CARE  3 UNITS  
54 Lecture Hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to possess an understanding of basic medical terminology.  
Designed for students who have had little or no formal training in arrhythmia diagnosis. Emphasis on diagnosing the major and life threatening arrhythmias incorporating patient assessment and treatment. Field trips might be required.  
(A-F or P/NP) Lecture.

EMS 390—EMERGENCY MEDICAL TECHNICIAN 1  6 UNITS  
126 Lecture hours  
Limitations on Enrollment: Enrollment limited to students who can demonstrate completion of basic First Aid and CPR (Healthcare Provider level) from the American Heart Association or National Safety Council, or Professional Rescue level from the American Red Cross. Students must also provide certification of completion of a 40-hour First Responder course which meets State of California Fire Marshal training level.  
Prepares the student for certification as an Emergency Medical Technician I. Students are trained to provide basic life support emergency care as mandated by the California Emergency Medical Services authority. Materials fee required.  
(A-F Only) Lecture.  
Transfer: (CC EMS 4)

EMS 391—EMERGENCY MEDICAL TECHNICIAN 1 REFRresher COURSE  1 1/2 UNITS  
27 Lecture hours  
Prerequisite: Satisfactory completion of EMS 390 or equivalent.  
Provides new and updated information for the Emergency Medical Technician, as well as reinforcement of basic knowledge and skills. Meets requirements for re-certification as an EMT in California. Unlimited completions.  
(A-F Only)

ENGL (English)

Dean: Patrick Bettencourt  
Division Office: Founders Hall, Room 200  
Phone: (209) 575-6149  
Division website: www.mjc.edu/current/programs/divdeps/litlang/  
Instructors: Adrienne Peel, Ann Smith, Annalise Hauser-Akop; Barbara Jensen, Bruce Andrus, Deborah Gilbert, PhD, Denise Smith; Dimitri Kehrtis; Emily Malen; Ingrid Kehrtis; James Beggs, PhD, Jason Wohlstadter, PhD, Jeffrey Netto, PhD, Jennifer Hamilton, PhD, Jenny Netto; Jillian Daly, Lillian Valley, PhD; Michael Smedshammer, PhD, Michelle Christopherson, Nita Gripl; Optimism One, RoseLee Hurt; Sam Pierson; Shelly Cole, Theresa Stovall; Theron Westrope, PhD, Timothy Hobert

PLACEMENT REQUIREMENTS FOR ENGLISH COURSES

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

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

ENGL 48—GRAMMAR REVIEW  1 UNIT  
18 Lecture hours  
Students will review the fundamentals of standard English grammar. They will practice recognizing and correcting errors in grammar and usage.  
(A-F or P/NP) Lecture.

ENGL 49—BASIC ENGLISH SKILLS  5 UNITS  
90 Lecture hours  
Corequisite: Concurrent enrollment in or satisfactory completion of READ 40 or qualification by the MJC assessment process.  
Fundamentals of writing. Emphasis on improving writing fluency, developing paragraphs and short essays, and learning to edit for spelling, punctuation and word usage. 6,000 word writing requirement including both in-class and out-of-class essays. Field trips may be required.  
(P/NP Only) Lecture.  
Transfer: (CC ENGL 650)

ENGL 50—BASIC COMPOSITION AND READING  5 UNITS  
90 Lecture hours  
Corequisite: Concurrent enrollment in or satisfactory completion of READ 40 or qualification by the MJC assessment process.  
Basic English skills in writing, reading, and thinking: writing effective sentences, organizing ideas into paragraphs and essays, utilizing fundamentals of English syntax, reading academic texts, and building vocabulary. Emphasis on basic critical thinking and study skills as well. 6,000 word writing requirement including some in-class writing. Field trips may be required.  
(A-F or P/NP) Lecture.  
Transfer: (CC ENGL 151)

ENGL 101—COMPOSITION AND READING  3 UNITS  
54 Lecture hours  
Corequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete READ 184.  
Fundamental skills in reading and writing at the college level. Emphasis on exposition, argument, research, and information competency. 8,000 word writing requirement, at least 6,000 of which must be in essays that have a developed thesis. 2,000 - 3,000 words of the 8,000 must be research-based writing with MLA formatting and documentation. Field trips might be required.  
(A-F or P/NP) Lecture.  
Transfer: (CSU, UC) (CC ENGL 1A) General Education: (MJC-GE: D1) (CSU-GE: A2) (IGETC: 1A)

CURRICULUM CHANGES “IMPACT” PROOF

INACTIVATED: NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW

225  
COURSES OFFERED
ENGL 102—ADVANCED COMPOSITION & INTRODUCTION TO LITERATURE 3 UNITS
S4 Lecture hours
Prerequisite: Satisfactory completion of ENGL 101.
Advanced composition with an introduction to literary analysis of fiction, poetry, and drama. Intended primarily for university transfer students, but open to any qualified student. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC)(CC ENGL 18) General Education: (MC-GE: C)(CSU-GE: C2)(IGETC: 3B)

ENGL 103—ADVANCED COMPOSITION & CRITICAL THINKING 3 UNITS
S4 Lecture hours
Formerly listed as: ENGL - 103: Adv Comp & Critical Thinking
Prerequisite: Satisfactory completion of ENGL 101.
Advanced composition course that focuses on the techniques and principles of argumentation. Examines style, diction, inference, evidence, reasoning, and rhetorical strategies of written argument. 8,000 word writing requirement, at least 6,000 of which must be in essays that have a developed thesis. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC)(CC ENGL 1C) General Education: (MC-GE: D2)(CSU-GE: A3)(IGETC: 1B)

ENGL 105—CREATIVE WRITING: POETRY 3 UNITS
S4 Lecture hours
Prerequisite: Satisfactory completion of ENGL 101 with a minimum grade of C or better.
Instruction and practice in writing poetry. Two completions allowed. (A-F or P/NP) Lecture. MJC Activities. Transfer: (CSU, UC) General Education: CSU-GE: C2

ENGL 106—CREATIVE WRITING: SHORT FICTION 3 UNITS
S4 Lecture hours
Prerequisite: Satisfactory completion of ENGL 101 with a minimum grade of C or better.
Instruction and practice in writing shorter forms of fiction. A maximum of 6 units of creative writing transferable to University of California. Two completions allowed. (A-F or P/NP) Lecture. MJC Activities. Transfer: (CSU, UC) General Education: CSU-GE: C2

ENGL 108—CREATIVE WRITING: AUTOBIOGRAPHY 3 UNITS
S4 Lecture hours
Prerequisite: Satisfactory completion of ENGL 101 with a minimum grade of C or better.
Instruction and practice in the writing of an autobiography. Two completions allowed. (A-F or P/NP) Lecture. MJC Activities. Transfer: (CSU, UC)

ENGL 109—CREATIVE WRITING: SCRIPTWRITING 3 UNITS
S4 Lecture hours
Prerequisite: Satisfactory completion of ENGL 101.
Instruction and practice in the writing of dramatic scripts for film, television, and theater. Two completions allowed. Field trips may be required. (A-F or P/NP) Lecture. MJC Activities. Transfer: (CSU, UC)

ENGL 112—INTRODUCTION TO THE NOVEL AND SHORT STORY 3 UNITS
S4 Lecture hours
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
An introduction to the novel and short story with emphasis on intelligent reading, analysis, and discussion of a range of fiction representing various types and traditions. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MC-GE: C)(CSU-GE: C2)(IGETC: 3B)

ENGL 114—INTRODUCTION TO POETRY 3 UNITS
S4 Lecture hours
Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Analysis and discussion of poetry. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MC-GE: C)(CSU-GE: C2)(IGETC: 3B)

ENGL 116—INTRODUCTION TO DRAMA 3 UNITS
S4 Lecture hours
Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Analysis and discussion of selected plays from classical Greek period to present. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MC-GE: C)(CSU-GE: C2)(IGETC: 3B)

ENGL 131—INTRODUCTION TO WORLD LITERATURE TO 1500 3 UNITS
S4 Lecture hours
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to have successfully completed ENGL 101 and ENGL 102.
Classical and medieval literature including historical backgrounds and reading in Asian, Middle Eastern, and European cultures. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC)(CC ENGL 81) General Education: (MC-GE: C)(CSU-GE: C2)(IGETC: 3B)

ENGL 132—INTRODUCTION TO WORLD LITERATURE (1500 TO PRESENT) 3 UNITS
S4 Lecture hours
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to have successfully completed ENGL 101 and ENGL 102.
Continuation of ENGL 131, reading from the Renaissance to contemporary literatures of Asian, Middle Eastern, European, and Latin American cultures. Note: students do not have to have taken ENGL 131 to enroll in ENGL 132. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC)(CC ENGL 17) General Education: (MC-GE: C)(CSU-GE: C2)(IGETC: 3B)

ENGL 135—SURVEY OF AMERICAN LITERATURE TO 1850 3 UNITS
S4 Lecture hours
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and ENGL 102.

ENGL 136—SURVEY OF AMERICAN LITERATURE: 1850 TO THE PRESENT 3 UNITS
S4 Lecture hours
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and ENGL 102.
Survey of American literature from the mid-nineteenth century to the present. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC)(CC ENGL 46) General Education: (MC-GE: C)(CSU-GE: C2)(IGETC: 3B)

ENGL 137—SURVEY OF ENGLISH LITERATURE TO THE 18TH CENTURY 3 UNITS
S4 Lecture hours
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and ENGL 102.
Survey of English literary history from the Anglo-Saxons to the Eighteenth Century with detailed study of the writings of Chaucer, Marlowe, Spenser, Shakespeare, Milton, and others. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC)(CC ENGL 47) General Education: (MC-GE: C)(CSU-GE: C2)(IGETC: 3B)

ENGL 138—SURVEY OF ENGLISH LITERATURE: 1700 - PRESENT 3 UNITS
S4 Lecture hours
Formerly listed as ENGL 138 - Survey of English Lit: 18th Century to Present
Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and ENGL 102.
Literary history of the eighteenth and nineteenth centuries with detailed study of the writings of Pope, Wordsworth, Coleridge, Byron, Keats, Shelley, Tennyson, and others. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MC-GE: C)(CSU-GE: C2)(IGETC: 3B)
ENGL 151—FOLKLORE 3 UNITS
Formerly listed as ENGL 151 - Introduction to Folklore
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Examine interrelationships of people throughout the world through discussion and analysis of our folk heritage. Folk-themes and symbolism in literature also will be discussed. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C2) (IGETC 3B)

ENGL 156—THE BIBLE AS LITERATURE: THE HEBREW CANON AND INTERTESTAMENTAL WRITINGS 3 UNITS
Formerly listed as ENGL 156 - The Bible As Literature - The Hebrew Canon
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to have eligibility for ENGL 101.
Literary criticism and an appreciation of historical background and textual transmission of selected books of the Hebrew Bible (Old Testament) and Intertestamental Writings (also known as the Apocrypha) in translation Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C2) (IGETC 3B)

ENGL 157—THE BIBLE AS LITERATURE: THE NEW TESTAMENT 3 UNITS
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Literary criticism and an appreciation of historical background and textual transmission of selected books of the New Testament. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C2) (IGETC 3B)

ENGL 161—FILM APPRECIATION 4 UNITS
72.00 Lecture Hours, 0 Lab Hours
Prerequisite: Satisfactory completion of ENGL 50.
An introductory course in film appreciation, emphasizing the development of sensitivity and critical judgment in audience response to film. Field trips might be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C1, C2) (IGETC 3A, 3B)

ENGL 162—HISTORY OF CINEMA 3 UNITS
45 Lecture hours, 27 Lab hours
Prerequisite: Satisfactory completion of ENGL 50.
A chronological survey of major works of Latin American writers studied in English translation and selected from the following: indigenous legends, chronicles, epistles, poetry, novel, drama, and short story. Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C2) (IGETC 3B)

ENGL 163—INTRODUCTION TO SHAKESPEARE 3 UNITS
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Introduction to literature for children. Includes types of literature and forms drawn from a variety of ethnic and cultural sources, storytelling, ways to promote interest, and criteria for choosing materials. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C2) (IGETC 3B)

ENGL 164—CHILDREN’S LITERATURE 3 UNITS
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Introduction to literature for children. Includes types of literature and forms drawn from a variety of ethnic and cultural sources, storytelling, ways to promote interest, and criteria for choosing materials. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C2) (IGETC 3B)

ENGL 165—INTRODUCTION TO MODERN ASIAN LITERATURE 3 UNITS
Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Introduction to modern Asian literature in English from its beginnings to its contemporary form. Emphasis on chronology of major works of Latin American writers studied in English translation and selected from the following: indigenous legends, chronicles, epistles, poetry, novel, drama, and short story. Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C2) (IGETC 3B)

ENGL 166—HISTORY OF CINEMA 3 UNITS
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Introduction to the contributions of African-Americans in American literature from the slave era to the present. The emphasis will be on a chronological study of major works in the following genres: slave narratives, folk tales, poetry, short story, novel, and drama. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C2) (IGETC 3B)

ENGL 171—INTRODUCTION TO AFRICAN-AMERICAN LITERATURE 3 UNITS
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
An introduction to literature by and about African-Americans written in the slave era to the present. The emphasis will be on a chronological study of major works in the following genres: slave narratives, folk tales, poetry, short story, novel, and drama. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C2) (IGETC 3B)

ENGL 172—INTRO TO CHICANO/A LITERATURE 3 UNITS
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
An introduction to literature by and about Chicanos written in the slave era to the present. The emphasis will be on a chronological study of major works in the following genres: slave narratives, folk tales, poetry, short story, novel, and drama. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C2) (IGETC 3B)

ENGL 173—INTRO TO LATIN AMERICAN LITERATURE 3 UNITS
Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
An introductory course on Asian literature from the 19th century to the present. Emphasis on chronology of major works of Latin American writers studied in English translation and selected from the following: indigenous legends, chronicles, epistles, poetry, novel, drama, and short story. Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C2) (IGETC 3B)

ENGL 174—INTRODUCTION TO WOMEN’S LITERATURE 3 UNITS
Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
An introductory course on Asian literature from the 19th century to the present in its English translation. Emphasis on major works that have made an impact on western literary tradition and the social, cultural, and historical forces that have shaped these works. (A-F Only) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C2) (IGETC 3B)

ENGL 175—INTRODUCTION TO FOLKLORE 3 UNITS
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Introduction to literature by and about women, including an historical overview, archetypes, stereotypes, cultural impediments to women’s writing, methods of criticism, and recent literary achievements. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education. (MJC-GE C) (CSU-GE C2) (IGETC 3B)
ENGL 176—INTRODUCTION TO MEXICAN LITERATURE  3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of ENGL 50.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

Introduction to Mexican literature from its Colonial Period to the present. Emphasis on chronologically
survey of major works of Mexican writers studied in English translation and selected from the following:
chronicles, epistles, poetry, novels, drama, and short stories. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: C)(CSU-GE: C2)(IGETC: 3B)

ENGL 179—INTRODUCTION TO NATIVE AMERICAN LITERATURE, 3 UNITS
MYTHOLOGY, AND THE ORAL TRADITION
54 Lecture hours
Formerly listed as ENGL 179 — Intro to Native American Lit
Prerequisite: Satisfactory completion of ENGL 50 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

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

ENGL 183—INTRODUCTION TO TUTORING COMPOSITION  2 UNITS
50 Lecture hours
Prerequisite: Satisfactory completion of ENGL 101.

Introductory course in the tutoring processes of English composition. Students will learn strategies for tutoring developmental to advanced writers. Specific focus will be on techniques for improvement of fluency, structure, revision, proofreading, and reading. Intended for students selected as tutors for the Division of Literature and Language Arts’ learning centers. Field trips may be required. (A-F Only) Lecture. Transfer: CSU

ENGL 184—ADVANCED TUTORING OF COMPOSITION  2 UNITS
50 Lecture hours
Prerequisite: Satisfactory completion of ENGL 183.

Course in the advanced techniques of tutoring processes of English composition. Students will further develop strategies for tutoring developmental to advanced writers. Specific focus will be on advanced techniques for improvement of fluency, structure, revision, proofreading, and reading and on the study of timely issues affecting tutors and students. Intended for students selected as tutors for the Division of Literature and Language Arts’ learning centers. Field trips may be required. (A-F Only) Lecture. Transfer: CSU

ENGR 100—INTRODUCTION TO ENGINEERING & ARCHITECTURE  1 UNIT
50 Lecture hours
Also offered as ARCH-100.

Introduction to the vocational and academic opportunities in engineering, architecture and related technologies. Topics include models of student success, characteristics of the professions, degree requirements, importance of teamwork and self-assessment. Activities include field trips, practice labs, projects and presentations by practicing engineers and architects. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC)

ENGR 101—INTRODUCTION TO SURVEYING AND TOPOGRAPHY  2 UNITS
36 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of MATH 115 or MATH 122.

Introduction to principles and techniques for measurement of distance, direction, and angle. Additional topics include: measurement errors, electric computations, global positioning systems, total station, topographic survey, and building and curve layout. Lecture/Laboratory. Field trips may be required. Transfer: (CSU, UC)

ENGR 127—ENGINEERING GRAPHICS  4 UNITS
36 Lecture hours, 108 Lab hours
Prerequisite: Satisfactory completion of MATH 90 or eligibility for MATH 101 or higher as determined by MJC Assessment process.

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

ENGR 130—PROPERTIES OF MATERIALS  4 UNITS
54 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of CHEM 101 with a minimum grade of C or better and PHYS 101 with a minimum grade of C or better and MATH 171.

Investigation of the internal structure of metals, ceramics, polymers, composites, and conducting materials and their effect on mechanical, electrical, magnetic, and thermal properties. Laboratory investigations include: metallography, fracure, composite test, and heat treatment analysis, hardness testing and composite performance testing. Materials fee required. Field trips are required. (A-F or P/NP) Lecture/Laboratory. Transfer: (CSU, UC)

ENGR 135—ENGINEERING MECHANICS/STATICS  3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of PHYS 101 and MATH 111.

Static analysis of particles and rigid bodies, vector notation, analytical solutions of two- and three-dimensional structures in equilibrium, center of gravity, moments of inertia and friction. Lecture/Laboratory. (A-F or P/NP) Transfer: (CSU, UC)

ENGR 140—INTRODUCTION TO CIRCUIT ANALYSIS (WITHOUT LAB)  3 UNITS
54 Lecture hours
Satisfactory prior completion of or concurrent enrollment in MATH 174 and PHYS 101.
Direct current and alternating current circuit analysis, steady and transient phenomena in RLC circuits, circuit theorems, single-phase and polyphase alternating current circuits. Field trips may be required. Lecture/Laboratory. (A-F or P/NP) Transfer: CSU, UC

ENGR 141—INTRODUCTION TO CIRCUIT ANALYSIS (WITH LAB)  4 UNITS
54 Lecture hours, 54 Lab hours
Prerequisite: Concurrent enrollment in or prior satisfactory completion of MATH 174 and PHYS 101.
Direct current and alternating current circuit analysis, steady and transient phenomena in RLC circuits, circuit theorems, single-phase and polyphase alternating current circuits and laboratory demonstrations/exercises emphasizing circuit construction, analysis and instrumentation. Field trips may be required. Lecture/Laboratory. Materials fee may be required. (Spring) (A-F or P/NP) Transfer: (CSU, UC)

INACTIVATED- NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW

DEAN: Brian Sanders
Division Office: Science Building, Room 126
Phone: (209) 575-6173
Division website: www.mjc.edu/current/programs/divdepts/ene/
**ENGTC**

(Engineering Technology)

Dean: Brian Sanders  
Division Office: Science Building, Room 126  
Phone: (209) 575-6773  
Division website: www.mjc.edu/current/programs/divdeps/sme/

The Engineering Technology program prepares students to transfer to four-year college and university programs. It is for students interested in learning the more pragmatic and applications aspects of engineering, and is directed to the application of established scientific and engineering knowledge and methods. Consult with an engineering advisor for selection of courses.

**ENGTC 210—INTRO TO COMPUTER ASSISTED DRAFTING**  
1 UNIT  
13.25 Lecture hours, 13.25 Lab hours  
Introduction to the use of the computer as a drafting tool. Topics include basic drawing, editing, and utility commands of AUTOCAD. (A-F or P/NP) Lecture/Lab. Transfer: CSU (MJC ENGTC 210 = CC DRAF 50A)

**ENGTC 211—INTERMEDIATE COMPUTER ASSISTED DRAFTING**  
1 UNIT  
13.25 Lecture hours, 13.25 Lab hours  
Formerly listed as Intermediate Topics in Computer Assisted Drafting  
Prerequisite: Satisfactory completion of ENGTC 210.  
Continuation of ENGTC 210 to include topics on the use of layers, blocks, templates, dimensioning, and various advanced drawing and editing commands. (A-F or P/NP) Lecture/Lab. Transfer: CSU (MJC ENGTC 210 + 211 = CC DRAF 50B)

**ENGTC 212—ADVANCED COMPUTER ASSISTED DRAFTING**  
1 UNIT  
9 Lecture hours, 27 Lab hours  
Formerly listed as Advanced Topics in Computer Assisted Drafting  
Prerequisite: Satisfactory completion of ENGTC 211.  
Advanced topics in computer assisted drafting including blocks and attributes, external references, layers, viewports and other tools necessary for working drawings. (A-F or P/NP) Lecture/Lab. Transfer: CSU

**ENGTC 215—INTRODUCTION TO SOLID MODELING**  
1 UNIT  
12.25 Lecture hour, 23 Lab hours  
Introduction to use of the solid modeling software. Topics include working in the sketch environment, solids construction, solids editing, drawing views, dimensioning, and assemblies. (A-F or P/NP) Lecture/Lab. Transfer: CSU

**ENGTC 375—CONSTRUCTION BLUEPRINT READING**  
2 UNITS  
27 Lecture hours, 27 Lab hours  
Reading and interpreting basic two-dimensional blueprints, terminology, symbols, notes, and building code practices for building trades, and basic construction practices. (A-F or P/NP) Lecture/Lab.

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**ENSCI**

(Environmental Sciences)

Dean: Mark Anglin  
Division Office: Agriculture Building, Room 100  
Phone: (209) 575-6200  
Division website: www.mjc.edu/prospective/programs/agens/index.html

**ENSCI 108—ENVIRONMENTAL CONSERVATION LABORATORY**  
1 UNIT  
54 Lecture hours  
Prerequisite: Satisfactory completion of ENSCI 108 or concurrent enrollment in ENSCI 108.  
Study of environmental conservation management concepts in an experiential format. Laboratory study will encompass environmental pollution control, population study, energy use and alternatives, water quality use and conservation, soil analysis and land use planning, wildlife habitat restoration, and hazardous materials analysis and alternatives. Field trips required. Laboratory. Transfer: (CSU, UC)

**ENSCI 109—INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS**  
3 UNITS  
36 Lecture hours, 54 Lab hours  
Also offered as GEOG 109.  
Introduction to Geographical Information Systems (GIS). GIS centers upon mapping as a tool for identifying and assessing spatial relationships of human activity. Applications to business, economics, weather, geology, agriculture, etc. Students will create, apply, and evaluate databases which generate maps. Field trips required. Lecture/Laboratory. (A-F Only). Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D7) (IGETC: 4G)

**ENSCI 110—CALIFORNIA WATER**  
3 UNITS  
36 Lecture hours, 54 Lab hours  
An interdisciplinary examination of California’s water use and management with an historical emphasis on the politics and conflict arising from water scarcity. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D7) (IGETC: 4G)
The Literature and Language Arts division offers two programs in ESL: a non-credit, adult basic education program of courses on six levels, and a six-level credit program intended for students who plan to pursue other academic and vocational study at the college. Most ESL courses are not degree-applicable; no major is offered.

ESL PATHWAYS

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>ESL for College</th>
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</thead>
<tbody>
<tr>
<td>BEGINNING ENGLISH LEARNER</td>
<td>ENGL 10</td>
</tr>
<tr>
<td>HIGH BEGINNING</td>
<td>ESL 20</td>
</tr>
<tr>
<td>INTERMEDIATE</td>
<td>ESL 40</td>
</tr>
<tr>
<td>HIGH INTERMEDIATE</td>
<td>ESL 45</td>
</tr>
<tr>
<td>ADVANCED</td>
<td>ESL 47 + ESL 48</td>
</tr>
<tr>
<td>COLLEGE-LEVEL ENGLISH</td>
<td>ENGL 101</td>
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<td></td>
<td>ENGL 50</td>
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<td>ENGL 49</td>
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</tbody>
</table>

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

Accuplacer English/ESL Assessment Examination

ESL: NON-DEGREE COURSES FOR CREDIT

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ESL 1 — ESL: BEGINNING ENGLISH FOR LIFE AND WORK</strong></td>
<td>5</td>
</tr>
<tr>
<td>90 Lecture hours</td>
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<tr>
<td>Beginning English for non-English speakers. Emphasis on beginning spoken English and basic literacy. Field trips may be required. (A-F Only) Lecture.</td>
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<tr>
<td><strong>ESL 2 — ESL: ELEMENTARY ENGLISH FOR LIFE AND WORK</strong></td>
<td>5</td>
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<tr>
<td>90 Lecture hours</td>
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<tr>
<td>Prerequisite: Satisfactory completion of ESL 1 or qualification by the MJC assessment process. Elementary English with emphasis on spoken English for practical needs and preparation for advancement into academic ESL classes. Field trips may be required. (A-F Only) Lecture.</td>
<td></td>
</tr>
<tr>
<td><strong>ESL 3 — ESL: HIGHER ELEMENTALY ENGLISH FOR LIFE AND WORK</strong></td>
<td>5</td>
</tr>
<tr>
<td>90 Lecture hours</td>
<td></td>
</tr>
<tr>
<td>Prerequisite: Satisfactory completion of ESL 2 or qualification by the MJC assessment process. High elementary level English for speakers of other languages. Instruction and practice in listening, speaking, and reading and writing. Preparation for advancement into credit ESL classes. Field trips may be required. (A-F Only) Lecture.</td>
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</tr>
<tr>
<td><strong>ESL 4 — ESL: INTERMEDIATE ENGLISH FOR LIFE AND WORK</strong></td>
<td>5</td>
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<tr>
<td>90 Lecture hours</td>
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<tr>
<td>Prerequisite: Satisfactory completion of ESL 3 or qualification by the MJC assessment process. Intermediate level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with a greater emphasis on academic preparation. Field trips may be required. (A-F Only) Lecture.</td>
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<tr>
<td><strong>ESL 5 — ESL: HIGH INTERMEDIATE ENGLISH FOR LIFE AND WORK</strong></td>
<td>5</td>
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<tr>
<td>90 Lecture hours</td>
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<tr>
<td>Prerequisite: Satisfactory completion of ESL 4 or qualification by the MJC assessment process. High intermediate level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with a greater emphasis on academic and workforce preparation. Field trips may be required. (A-F Only) Lecture.</td>
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<tr>
<td><strong>ESL 6 — ESL: LOW ADVANCED ENGLISH FOR LIFE AND WORK</strong></td>
<td>5</td>
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<tr>
<td>90 Lecture hours</td>
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<tr>
<td>Prerequisite: Satisfactory completion of ESL 5 or qualification by the MJC assessment process. Low advanced level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with great emphasis on transition to academic programs, the workplace, and job-training courses. Field trips may be required. (A-F Only) Lecture.</td>
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<tr>
<td><strong>ESL 10 — ENGLISH LANGUAGE 1</strong></td>
<td>10</td>
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<tr>
<td>175 Lecture hours</td>
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<tr>
<td>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ESL 901 and/or ESL 902, especially if they lack elementary listening comprehension and speaking skills. To be successful in ESL 10, students need to be able to understand, follow, and respond to basic instruction(s) in English. Elementary course in speaking, listening, reading, and writing for persons learning English as another language. Field trips may be required. Lecture. (A-F or P/NP)</td>
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</tr>
<tr>
<td><strong>ESL 20 — ENGLISH LANGUAGE 2</strong></td>
<td>5</td>
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<tr>
<td>90 Lecture hours</td>
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<tr>
<td>Prerequisite: Satisfactory completion of ESL 10 or qualification by the MJC assessment process. Continuation of ESL 10. Elementary English grammar component for persons learning English as another language. Emphasis on vocabulary and sentence structure for practical communication in school, community, and work. Field trips may be required. (A-F or P/NP) Lecture.</td>
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</tr>
<tr>
<td><strong>ESL 23 — ENGLISH SPEAKING AND LISTENING</strong></td>
<td>5</td>
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<tr>
<td>90 Lecture hours</td>
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<tr>
<td>Formerly listed as ESL 23 - Spoken English 1 Recommended for Success: Before enrolling in this course, students are strongly advised to use English grammar and tenses at the elementary level. Read simplified texts demonstrating knowledge of elementary vocabulary and follow basic oral and written instructions without the need of a translator. An introduction to basic pronunciation of vowels and consonants of the English language. Attention paid to rhythm, intonation, and syllable stress, and the aural and vocabulary skills required to function in basic English. Field trips may be required. (A-F or P/NP) Lecture.</td>
<td></td>
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</tbody>
</table>
ESL 24—ESL COMPOSITION AND READING 1 5 UNITS
90 Lecture hours
Prerequisite: Satisfactory completion of ESL 10 or qualification by the MJC assessment process. Recommended for Success: Before enrolling in this course, students are advised to concurrently enroll in ESL 20. Practice in reading and writing for students at the beginning (second-semester) level. Significant homework may be assigned to a lab. Field trips may be required. (A-F or P/NP) Lecture.

ESL 30—ENGLISH LANGUAGE 3 5 UNITS
90 Lecture hours
Prerequisite: Placement in ESL 30 through MJC assessment process, or satisfactory completion of ESL 20 or equivalent course.
Continuation of ESL 20. Lower intermediate component for persons learning English as another language. Emphasis on review and expansion of lower intermediate grammatical structures in reading, writing, listening, and speaking. Lecture. Field trips may be required. (A-F or P/NP).

ESL 33—ENGLISH SPEAKING AND LISTENING 2 5 UNITS
90 Lecture hours
Prerequisite: Satisfactory completion of ESL 23 or qualification by the MJC assessment process.
Continued development in pronunciation, rhythm, intonation, stress, reductions, linking, and focus shift of English. Beginning aural comprehension of simplified lectures; participation in group discussion, and vocabulary necessary for delivery of short presentations. (A-F or P/NP) Lecture.

ESL 34—ESL COMPOSITION AND READING 2 5 UNITS
90 Lecture hours
Prerequisite: Satisfactory completion of ESL 20 or qualification by the MJC assessment process and ESL 24 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are advised to concurrently enroll in ESL 30. Practice in reading and writing for students at the low-intermediate (third-semester) level of ESL courses. Continuation of ESL 24. Significant homework may be assigned to a lab. Field trips may be required. (A-F or P/NP) Lecture.

ESL 40—ENGLISH LANGUAGE 4 5 UNITS
90 Lecture hours
Prerequisite: Placement in ESL 40 through assessment process or satisfactory completion of ESL 30 or equivalent course.
Intermediate course in English for persons learning English as another language. Introduction to more difficult structures in English sentences. Review of elementary English. Field trips may be required. (A-F or P/NP) Lecture.

ESL 43—ENGLISH SPEAKING AND LISTENING 5 UNITS
90 Lecture hours
Formerly listed as: ESL 43—Spoken English 2
Prerequisite: Satisfactory completion of ESL 33 or qualification by the MJC assessment process.
Continued development in natural pronunciation of American English with emphasis on advanced rhythm, intonation, and stress. Students become adept at oral presentations and gain proficiency in leading discussions. Aural comprehension emphasizes paraphrasing, note taking, and summaries of college lectures. Field trips may be required. (A-F or P/NP) Lecture.

ESL 44—ESL COMPOSITION AND READING 3 5 UNITS
90 Lecture hours
Prerequisite: Satisfactory completion of ESL 30 and ESL 34 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are advised to concurrently enroll in ESL 40. Practice in writing paragraphs and multi-paragraph compositions and reading for students at the intermediate level of ESL with a comprehensive foundation in English grammar and the ability to write well-formed paragraphs in English. Continuation of ESL 34. Significant homework may be assigned to a lab. Field trips may be required. (A-F or P/NP) Lecture.

ESL 45—ENGLISH LANGUAGE 5 5 UNITS
90 Lecture hours
Prerequisite: Placement in ESL 45 through assessment process or satisfactory completion of ESL 40 or equivalent course.
Continuation of ESL 40. Higher intermediate components for persons learning English as another language. Review and expansion of higher intermediate grammatical structures in reading, writing, listening, and speaking. Lecture. (A-F or P/NP)

ESL 46—ESL COMPOSITION AND READING 4 5 UNITS
90 Lecture hours
Prerequisite: Satisfactory completion of with a minimum grade of C or better Placement in ESL 45 through assessment process or satisfactory completion of ESL 40 and ESL 44 or equivalent course.
Practice in writing academic essays and analysis of authentic reading for students at the higher intermediate level of ESL. Significant homework may be assigned to a lab. Field trips may be required. (A-F or P/NP) Lecture.

ESL 47—ENGLISH LANGUAGE 6 5 UNITS
90 Lecture hours
Prerequisite: Placement in ESL 47 through assessment process or satisfactory completion of ESL 45 or equivalent course.
Continuation of ESL 45. Advanced English grammar component for persons learning English as another language. Emphasis on review and expansion of advanced grammatical structures in reading, writing, listening and speaking for success in college-level courses. Lecture. (A-F or P/NP)

ESL 48—ESL COMPOSITION AND READING 5 5 UNITS
90 Lecture hours
Prerequisite: Satisfactory completion of ESL 45 and ESL 46 or qualification by the MJC assessment process.
Recommended for Success: Before enrolling in this course, students are advised to concurrently enroll in ESL 47. Practice in composition and reading for advanced ESL students who plan to continue in college. Preparation for reading and writing in various academic and vocational disciplines. Emphasis on writing in response to reading. Significant homework may be assigned to a lab. Field trips may be required. (A-F or P/NP) Lecture.

ESL 901—ESL: BEGINNING ENGLISH FOR LIFE AND WORK 90 Lecture hours
Formerly listed as: ESL 901 - ESL: Beginning
Beginning English for non-English speakers. Emphasis on beginning spoken English and basic literacy. Repeatable. Field trips may be required. (Non-Graded course) Lecture.

ESL 902—ESL: ELEMENTARY ENGLISH FOR LIFE AND WORK 90 Lecture hours
Formerly listed as: ESL 902 - ESL: Lower Elementary
Prerequisite: Satisfactory completion of ESL 901 or qualification by the MJC assessment process.
Elementary English with emphasis on spoken English for practical needs and preparation for transition into academic ESL classes. Repeatable. Field trips may be required. (Non-Graded course) Lecture.

ESL 903—ESL: HIGHER ELEMENTARY ENGLISH FOR LIFE AND WORK 90 Lecture hours
Formerly listed as: ESL 903 - ESL: Higher Elementary
Prerequisite: Satisfactory completion of ESL 902 or qualification by the MJC assessment process.
High elementary level English for speakers of other languages. Instruction and practice in listening, speaking, and reading and writing. Preparation for transition into academic ESL classes. Repeatable. Field trips may be required. (Non-Graded course) Lecture.

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

ESL 905—ESL: HIGH INTERMEDIATE ENGLISH FOR LIFE AND WORK 90 Lecture hours
Formerly listed as: ESL 920 - English At Work 1
Prerequisite: Satisfactory completion of ESL 904 or qualification by the MJC assessment process.
High intermediate level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with a greater emphasis on academic and workforce preparation. Repeatable. Field trips may be required. (Non-Graded course) Lecture.
ESL 906—ESL: LOW ADVANCED ENGLISH FOR LIFE AND WORK
90 Lecture hours
Formerly listed as ESL 923 - English At Work 2
Prerequisite: Satisfactory completion of ESL 905 or qualification by the MJC assessment process.
Low advanced level English for speakers of other languages. Instruction and practice in listening, speaking, reading, and writing with great emphasis on transition to academic programs, the workplace, and job-training courses. Repeatable: field trips may be required. (Non-Graded course) Lecture.

FAML (Family Life)
Dean: Maurice McKinnon, EdD
Division Office: John Muir Hall, Room 157
Phone: (209) 575-6343
Division website: www.mjc.edu/prospective/programs/fcs/index.html

FAML 131—FAMILY RELATIONSHIPS  3 UNITS
54 Lecture hours
The family and its interpersonal relationships, the formation and development of the family, adjustments within the family, the family cycle, parenthood, marriage enrichment, dissolution of marriage and remarriage, exploration of resources to strengthen the family. Lecture. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MX-GE: E)(CSU-GE: D7,E)(ICETC:4G)

FAML 242—PARENT INVOLVEMENT 3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Satisfactory completion of CLDDV 245
Experience in promoting increased parent involvement and parent education in community programs. Field trips required. Lecture/Other. (Fall) Transfer: CSU

FAML 355X,A—THE CHILD IN THE FAMILY ½, 1 UNIT
X=9 Lecture hours, A=18 Lecture hours
Influences of the family and school on the growth and development of the child from the prenatal stage through the early childhood years. Community resources that impact children may be completed up to four times. Field trips may be required. Lecture. (A-F or P/NP)

FAML 390—THE PROCESS OF PARENTING 1 UNIT
18 Lecture hours
Discussion of child growth and development related to parenting. Background for understanding parent-child relationships. Emphasis on cooperation through effective and mutually respectful communication techniques. Lecture. Three completions allowed. (A-F or P/NP)

FAML 800—PARENT EDUCATION 0 UNITS
9.00 Lecture Hours,
Exploration of current issues in parenting. Influences of the family and school on the growth and development of the child. Emphasis on positive and nurturing guidance techniques. Repeatable: field trips might be required. (P/NP Only)

FDNTR (Food & Nutrition)
Dean: Maurice McKinnon, EdD
Division Office: John Muir Hall, Room 157
Phone: (209) 575-6343
Division website: www.mjc.edu/prospective/programs/fcs/index.html

FDNTR 219—NUTRITION 3 UNITS
54 Lecture hours
Recommended for Success: Satisfactory completion of Laboratory chemistry course in high school or college, or concurrent enrollment.
Concepts of nutrient requirements of the body in relation to growth maintenance, and repair at different stages of a normal life cycle; factors influencing normal metabolism; construction of an adequate diet at different ages and food safety and hunger will be examined. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MX-GE: A)

FDNTR 351—PRACTICAL NUTRITION 3 UNITS
54 Lecture hours
Recommended for Success: Laboratory chemistry course in high school or college or concurrently enrolled.
Basic principles of nutrition and their application. Hunger, food safety and current nutritional controversies will be examined. (A-F or P/NP) Lecture. General Education: (MX-GE: A)

FDP (Food Processing)
Dean: Mark A. Anglin
Division Office: Agriculture, Room 100
Phone: (209) 575-6200
Division website: www.mjc.edu/prospective/programs/agens/index.html

The student will acquire skills sufficient for technical employment in the food processing industry. The student may also prepare for transfer to a university food science major by adapting this program in consultation with an advisor. Contact the division office in the Agriculture Building for advising assistance.

FDP 200—BASIC FOOD PROCESSING 3 UNITS
36 Lecture hours, 54 Lab hours
Introductory course for work in food processing industry. Methods of food preservation, assurance of quality, laws related to food processing, skills and techniques used by the industry. Field trips required. Lecture/Laboratory. (A-F Only) Transfer: CSU

FDP 300—CERTIFIED PROFESSIONAL FOOD MANAGER TRAINING 1½ UNITS
24 Lecture hours
Develops a working knowledge and familiarity with technology and strategies to manage food safety from production to consumption. Field trips may be required. Two completions allowed. Lecture. Materials fee required. (A-F Only)

FDP 301—CERTIFIED HACCP MANAGER TRAINING 1½ UNITS
24 Lecture hours
Recommended for Success: An understanding of basic food safety programs; i.e., CMM, SSD0%, and fundamentals of sanitation procedures.
Elements of hazard analysis and critical control points and how they integrate into a successful food safety program for manufacturers, wholesalers, distributors and food establishment operations with the goal of HACCP certification. Field trips required. Two completions allowed. Lecture. Materials fee required. (A-F Only)

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED· NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
FDP 342—INTRODUCTORY WINE EVALUATION 1 UNIT
18 Lecture hours
Prerequisite: Satisfactory completion of FREN 103.

FDP 376—BASIC FOOD PLANT LABORATORY PROCEDURES 1 UNIT
10 Lecture hours, 20 Lab hours
Details of food plant laboratory procedures, emphasis on net weight, fill weight, syrup checking, and statistical quality control. Lecture/Laboratory. (A-F Only)

FDP 378—FOOD LABORATORY INSTRUMENTS 1 UNIT
10 Lecture hours, 20 Lab hours
Basic conversational French for travel, work, or preparation for French 101. Field trips may be required. Lecture. (A-F or P/NP) General Education: (MJC-GE: C)(CSU-GE: C2)

FDP 379—FOOD PRODUCTS GRADING 1 UNIT
10 Lecture hours, 20 Lab hours
Prerequisite: Satisfactory completion of FREN 103. Review and expansion of grammatical structures covered in FREN 103. Field trips may be required. Lecture/Laboratory. (A-F Only)

FDP 380—FOOD PRODUCTS MICROANALYSIS-A 1 UNIT
10 Lecture hours, 20 Lab hours
Prerequisite: Satisfactory completion of FREN 103. Review and expansion of grammatical structures covered in FREN 103. Field trips may be required. Lecture/Laboratory. (A-F Only)

FDP 381—FOOD PRODUCTS MICROANALYSIS-B MOLD COUNTING 2 UNITS
14 Lecture hours, 20 Lab hours, 4 Lab hours
Prerequisite: Satisfactory completion of FREN 103.

FDP 382—FOOD PRODUCTS MICROANALYSIS-C 1 UNIT
14 Lecture hours, 20 Lab hours, 4 Lab hours
Prerequisite: Satisfactory completion of FREN 103.

FDP 383—ENZYMES IN THE FOOD INDUSTRY 1 UNIT
18 Lecture hours
Prerequisite: Satisfactory completion of FREN 103.

FDP 386—FOOD LABORATORY CHEMISTRY PROCEDURES 1 UNIT
10 Lecture hours, 20 Lab hours
Prerequisite: Satisfactory completion of FREN 103.

FDP 387—FOOD PROCESSING SANITATION AND CLEANUP 1 UNIT
10 Lecture hours
Prerequisite: Satisfactory completion of FREN 103.
FSCI  (Fire Science)

Dean: Maurice McKinnon, Ed.D.
Director: John Sola (209) 575-5701
Division Office: Regional Fire Training Center, 1220 Fire Science Lane
Phone: (209) 575-5701

The Fire Science curriculum prepares the student for a career in fire service. Students will learn about the organization and operations of fire service, proper use of fire equipment, tactics and strategies of fire fighting, specialized job skills, and management techniques. Fire Science courses dropped or inactivated Fall 1987 to Fall 1988 are valid for students completing those courses prior to deletion from the catalog. For more information, contact the Regional Fire Training Center at 549-5706.

FSCI 301—FIRE PROTECTION ORGANIZATION  3 UNITS
54 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have ENGL 50 eligibility.

Introduction to the fire service and fire protection; career opportunities in fire protection and related fields; history of fire protection; fire loss analysis; private and public private protection services; specific fire protection functions. Student may repeat if required by regulation. Field trips might be required. (A-F Only)

FSCI 302—FIRE PREVENTION TECHNOLOGY  3 UNITS
54 Lecture Hours
A basic overview of the role of fire prevention in modern fire service. Identifies the relationship of fire prevention, fire safety education, fire detection, and suppression systems. Field trips might be required. (A-F Only)

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

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301. Portable fire extinguishing equipment; sprinkler systems; protection systems for special hazards; fire alarm and detection systems. Field trips are required. (A-F Only)

FSCI 304—BUILDING CONSTRUCTION FOR FIRE PROTECTION  3 UNITS
54 Lecture Hours
Formerly listed as: FSCI - 304: Bldg Construction for Fire Protection

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.

Foundations of building construction as it relates to fire protection. Introduction to building materials and processes that are involved in the construction of structures. Provides students with the knowledge required to operate safely and effectively within residential or commercial buildings. Field trips might be required. (A-F Only)

FSCI 305—FIRE BEHAVIOR AND COMBUSTION  3 UNITS
54 Lecture hours

Theory and fundamentals of how and why fires start, spread, and are controlled; an in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques. Lecture (A-F Only) Transfers: (CC FIRE 5)

FSCI 306—PRINCIPLES OF FIRE AND EMERGENCY SERVICES SAFETY  3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.

Introduction to the basic principles and history related to the national firefighter life safety initiatives; focusing on the need for cultural and behavior changes throughout the emergency services. Student may repeat if required by regulation. Field trips may be required. (A-F Only) Lecture

FSCI 309 FIRE MANAGEMENT 2E  2½ UNITS
45 Lecture hours
Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Fire Management 1A.

Ethical leadership is an essential core value for all leaders in the fire service. This course provides chief officers or chief officer candidates with knowledge to correlate personal core values and characteristics to ethical decisions and behaviors. Course examines exploration of ethical and principle-centered leadership. Course instructor will require students to provide a State Fire Training Fire Management 1A certificate. Materials Fee Required. Student may repeat if required by regulation. Field trips may be required. (A-F Only) Lecture

FSCI 311—RESCUE SYSTEMS 1  2 UNITS
36 Lecture hours, 45 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have received California State Fire Training’s Firefighter One Certification or have satisfactorily completed FSCI 363.

Topics include: Team organization, rescue, and environmental considerations, use of ropes, knots rigging and pulley systems, descending, rappelling, and belaying tools and techniques, subsurface rescue techniques; use of cribbing, wedges, cutting/prying and hydraulic tools, use of fire service ladders in specialized rescue situations, and day and night simulated rescue exercises. Materials fee required. Field trips may be required. (A-F or P/NP) Lecture

FSCI 312—FIRE INVESTIGATION 2A  2 UNITS
36 Lecture hours, 45 Lab hours
Limitations on Enrollment: Enrollment limited to students who provide verification of completion of Fire Investigation 1B.

Provides information on conducting an explosive investigation and surveillance operation, preparing a search warrant, testifying as an expert witness, assembling a curriculum vitae, and properly documenting a criminally caused fire. Materials fee Required. Student may repeat if required by regulation. Field trips may be required. (A-F Only) Lecture

FSCI 322—FIRE SERVICE CAREER DEVELOPMENT/PROMOTIONS  3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of FSCI 301.

Introduction to Fire Service Career Development. This course of instruction is designed to assist fire science students to prepare for entry level and interdepartmental fire Service examinations. To be considered an eligible candidate students must have a working knowledge of fire service testing standards and terminology. Students will collect information for the application processes, resume writing, entry level written tests, mechanical aptitude and oral interviews. Students are also instructed on aspects of pre-employment medical and psychological tests and background checks. Field trips may be required. (A-F Only) Lecture/Lab

FSCI 323—FIRE HYDRAULICS  3 UNITS
54 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.

Review of applied mathematics; hydraulics laws as applied to the fire service; application of formulas and mental calculations to hydraulics and water supply problems. Field trips might be required. (A-F Only) Lecture

FSCI 327—FIRE APPARATUS AND EQUIPMENT  3 UNITS
54 Lecture Hours
Limitations on Enrollment: Enrollment limited to students who can provide State Fire Training Certificate for Firefighter 1.

Fire apparatus design, specifications, and performance capabilities; effective utilization of apparatus in fire service emergencies. Student may repeat if required by regulation. Field trips might be required. (A-F Only)

FSCI 328—INVESTIGATION OF FIRES  3 UNITS
54 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.

Determining cause of fires (accidental, suspicious and incendiary), types of fires; related laws; introduction to arson and incendiarism; recognizing and preserving evidence; interviewing witnesses and suspects; arrest and detention procedures; court procedures and giving court testimony. Field trips might be required. (A-F Only)
FSCI 332 — FIRE SCIENCE TACTICS & STRATEGY  3 UNITS
54 Lecture Hours
Prerequisite: Satisfactory completion of FSCI 301.
Principles of fire control through the utilization of manpower, equipment and extinguishing agents on the fireground. Field trips might be required. (A-F Only)

FSCI 337 — WILDLAND FIRE CONTROL  3 UNITS
54 Lecture Hours
Limitations on Enrollment: Enrollment limited to students who can provide State Fire Training Certificate for Firefighter 1.
Introduction to factors affecting wildland fire prevention, fire behavior, and control techniques. Field trips might be required. (A-F Only)

FSCI 337 — WILDLAND FIRE CONTROL  3 UNITS
54 Lecture Hours
Prerequisite: Satisfactory completion of FSCI 301
Introduction to factors affecting wildland fire prevention, fire behavior, and control techniques. May be repeated an unlimited number of times. Field trips may be required. Lecture. (A-F Only)
Transfer: (CC FIRE 7)

FSCI 341 — FIRE COMMAND 1C: 1-ZONE FIREFIGHTING  2 UNITS
54 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 350 and satisfactorily complete FSCI 351.
Responsibilities of the Company Officer at a wildland/urban interface incident. Materials Fee Required. Student may repeat if required by regulation. (A-F Only) Lecture

FSCI 347 — FIRE PREVENTION 1C  2½ UNITS
45 Lecture Hours
Limitations on Enrollment: Enrollment limited to students who can provide State Fire Training Certificate for Fire Prevention 1A and Fire Prevention 1B.
Provides fire service personnel with the third phase of State Certified Fire Prevention instruction. Includes instruction on flammable and combustible liquid hazards, storage and extinguishment. Materials fee required. Field trips might be required. (A-F Only)

FSCI 350 — FIRE COMMAND 1A  2 UNITS
45 Lecture Hours
Prerequisite: Satisfactory completion of FSCI 301 with a minimum grade of C or better.
Fundamental skills for the First-in Incident Commander and company officers. Instruction and simulation time pertaining to the initial decision and action processes at a working fire. Topics include the fire officer, fire behavior, fireground resources, operations, and management. Materials Fee Required. Student may repeat if required by regulation. (A-F Only) Lecture/Lab

FSCI 351 — FIRE COMMAND 1B  2 UNITS
34 Lecture Hours, 6 Lab Hours
Prerequisite: Satisfactory completion of FSCI 301 and FSCI 350
Prepares fire officers for command of various emergency incidents. Emphasizes development of management and decision making practices required for success. Topics include use of the Incident Command System to manage major disasters, wildland fires, multi-casualty and hazardous materials incidents. Materials Fee Required. Field trips may be required. (A-F Only)

FSCI 352 — TRAINING INSTRUCTOR 1A  2½ UNITS
32 Lecture hours, 8 Lab hours
Formerly listed as: FSCI - 352: Fire Instructor 1A
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301 and/or Possess a California Firefighter I certificate.
The first of a three course series to prepare in-service firefighters to become a company officer and or a California State Fire Training Level 1 Instructor. Training instructor courses must be taken in order 1A, 1B then 1C. Topics include methods and techniques for cognitive training in accordance with current concepts in vocational education. Emphasis on selecting, adapting, organizing, and using instructional materials appropriate for teaching cognitive lessons. Personnel enrolled will be responsible to learn principles of learning, levels of instruction, methods of selecting, adapting, organizing and evaluating instructional efficiency. All students will complete all assignments and deliver two student lead cognitive teaching demonstrations, and must pass a state certified written test. Materials Fee Required. (A-F Only) Lecture

FSCI 353 — TRAINING INSTRUCTOR 1B  2½ UNITS
45 Lecture hours
Formerly listed as: FSCI - 353: Fire Instructor 1B
Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Training Instructor 1A.
This is the second class of a three course series to prepare in-service firefighters to become a company officer and or a California State Fire Training Level 1 Instructor. Training instructor courses must be taken in order 1A, 1B then 1C. Topics include methods and techniques for psychomotor training in accordance with current concepts in vocational education. Emphasis on selecting, adapting, organizing, evaluating instruction appropriate for teaching psychomotor lessons. Personnel enrolled will be responsible to learn methods of employing the four-step-method of instruction for psychomotor training. All students will complete all assignments and deliver two student lead psychomotor teaching demonstrations, and pass a state certified written test. Enrolled students must present course instructor with a Training Instructor 1A state certification the first day of class. Materials Fee Required. (A-F Only) Lecture

FSCI 354 — FIRE PREVENTION 1A  2 UNITS
32 Lecture hours, 8 Lab hours
Prerequisite: Satisfactory completion of FSCI 301 with a minimum grade of C or better.
Designed to provide prospective or active Fire Office Officer and Fire Prevention personnel with basic fire prevention information. Structured to prepare the student for responding to a variety of fire prevention situations in a professional and effective manner. Materials fee required. Field trips may be required. (A-F Only)

FSCI 355 — FIRE PREVENTION 1B  2½ UNITS
45 Lecture Hours
Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training Certificate for Fire Prevention 1A.
Designed to provide fire service personnel with the second phase of state certified fire prevention instruction. Includes instruction on private water systems, fixed fire extinguishing, detection and alarm systems. Materials fee required. Field trips are required. (A-F Only)

FSCI 356 — FIRE MANAGEMENT 1  2½ UNITS
45 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.
Prepares fire officers for fire service leadership in preparing for and responding to a variety of fire prevention situations in a professional and effective manner. Materials Fee Required. Certificate for Firefighter I. Materials Fee Required. Field trips might be required. (A-F Only)

FSCI 357 — FIRE INVESTIGATION 1  2½ UNITS
45 Lecture Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete FSCI 301.
Examines the national arson problem, fire investigation responsibilities, conduct of the investiga-
tor; fire chemistry, heat energy sources and explosive conditions; fire investigation techniques and legal aspects of fire investigation. Materials fee required. Field trips are required. (A-F Only)

FSCI 362 — BASIC FIRE ACADEMY  8 UNITS
108 Lecture Hours, 108 Lab Hours
Prerequisite: Satisfactory completion of FSCI 301 and FSCI 304 and FSCI 305 and EMS 390.
Limitations on Enrollment: Enrollment limited to students who are accepted into the Fire Academy program by Fire Academy Selection Committee and who possess CPAT certification, per NFPA 1582 regulation.
Basic knowledge and skills of a fire fighter as set by the State Fire Marshal. Successful completion of the course fulfills the educational requirement for Fire Fighter I. Materials fee required. Field trips are required. (A-F Only)

FSCI 363 — ADVANCED FIRE ACADEMY  9 UNITS
81 Lecture Hours, 243 Lab Hours
Prerequisite: Satisfactory completion of FSCI 362.
Basic Fire Academy is the second of two courses of the Fire Academy designed for the individual who desires a career as a professional firefighter. This course includes instruction in ventilation, vehicle extinction, ICS 200, 67-hr Wildland Firefighting, Confined Space Awareness, Low-Angle Rope, Rescue Operations, Hazmat Operations/Decon, Firefighter Survival. Materials fee required. Field trips are required. (A-F Only)
FSCI 364—FIRE APPARATUS DRIVER/OPERATOR 1A  2 UNITS
27 Lecture Hours, 27 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to
completes FSCI 362.
Limitations on Enrollment: Enrollment limited to students who possess a valid California
Driver’s License, class B, firefighter restricted (minimum).
Continued development of a firefighter’s career. Operation of emergency vehicle and pump
operations. How to drive and maintain various types of vehicles. Pump operation and uses for
water sources and determining water flow. Materials fee required. Field trips might be required.
(A-F Only)

FSCI 366—FIRE APPARATUS DRIVER/OPERATOR 1B  2 UNITS
34 Lecture hours, 6 Lab hours
Limitations on Enrollment: Enrollment limited to students who possess a valid California
Driver’s License, class B, firefighter restricted (minimum).
Pump construction and theory of pump operations. Topics include: methods for performing basic
hydraulics and techniques on basic inspections, documentation, maintenance, and troubleshoot-
ing fire pumps. Each student also has the opportunity to increase his or her pumping skills during
simulated pumping conditions. Materials Fee Required. Student may repeat if required by regula-
tion. Field trips might be required. (A-F Only)

FSCI 367—FIRE INVESTIGATION 1B  2½ UNITS
45 Lecture Hours
Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training
Certificate for Fire Investigation 1A.
This course provides a deeper understanding of fire investigation and builds on Fire Investigation
1A. Topics include: The juvenile fire setter, report writing, evidence preservation and collection,
interview techniques, motives, and fire fatalities. Materials fee required. Field trips might be
required. (A-F Only)

FSCI 369—TRAINING INSTRUCTOR 1C  2½ UNITS
36 Lecture Hours, 27 Lab Hours
Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training
Certificate for Training Instructor 1A and a State Fire Training Certificate for Training Instructor
1B. This is the third of a three-course series to prepare in-service firefighters to become a California
State Fire Training Level 1 instructor.
Topics include methods and techniques for developing and delivering cognitive and psychomo-
tor lesson plans. Emphasis on developing lesson plans, ancillary components, and testing tools
for cognitive and psychomotor lessons. Personnel enrolled will be responsible to learn methods
for developing and delivering cognitive and psychomotor lessons. All students will develop
and deliver two student lead teaching demonstrations and pass a state certification test. Enrolled
students must present course instructor with a Training Instructor 1A and 1B certificate on the first
day of class. Materials fee required. Field trips are not required. (A-F Only)

FSCI 371—FIRE COMMAND 2A  2½ UNITS
45 Lecture Hours
Limitations on Enrollment: Enrollment limited to students who can provide a State Fire Training
Certificate for Fire Command 1A and 1-300.
Prepares Fire Officers to use management techniques and Incident Command System when
commanding multiple alarms or large combat forces. Materials fee required. Student may repeat if
required. Field trips might be required. (A-F Only)

FSCI 372—FIRE MANAGEMENT 2B  2½ UNITS
Formerly listed as: FSCI - 372B—Fire Management 2B
45 Lecture Hours
Limitations on Enrollment: Enrollment limited to students who can provide State Fire Training
Certificate for Fire Management 1.
Covers the purpose of budgeting, budget controls, types of budgets and budget systems and
justifying budgets. Materials fee required. Field trips might be required. (A-F Only)

FSCI 373—FIRE INSTRUCTOR 2A  2½ UNITS
45 Lecture Hours
Limitations on Enrollment: Enrollment limited to students who can provide State Fire Training
Certificate for Training Instructor 1A, Training Instructor 1B, and Training Instructor 1C.
The first of three State Fire Training courses for Fire Instructor II certification. Advanced skill
development for instructors who are responsible for evaluating performance. Course work provides
the student with the techniques of evaluation. Course content includes construction of written
and performance tests. Students will apply concepts of test planning, test analysis, test security,
and test evaluation to determine instructor and student effectiveness. This is an essential course
for writing valid and objective Fire Service tests. Materials fee required. Field trips are not required.
(A-F Only)

FSCI 374—FIRE INSTRUCTOR 2B  2½ UNITS
45 Lecture Hours
Limitations on Enrollment: Enrollment limited to students who can provide State Fire Training
Certificates for Fire Instructor 1A and 1B, or Training Instructor 1A, 1B, and 1C.
Second of three courses for California State Fire Training, Fire Instructor II certification. Students
receive advanced leadership and development skills for planning staff level training and group
meetings. Course work includes information on group dynamics, problem-solving techniques,
interpersonal relations, staff meetings, brainstorming sessions, panel discussions, conferences and
forums. Materials fee required. Field trips are not required. (A-F Only)

FSCI 375—FIRE INSTRUCTOR 2C  2 UNITS
30 Lecture hours, 10 Lab hours
Prerequisite: Satisfactory completion of FSCI 352 and FSCI 353.
Principles of media in the instructional process; selection of audio-visual and instructional
media; employment of basic and advanced forms of instructional media; use of computers in the
instructural process, individualized instruction programs. Materials Fee Required. Field trips may
be required. (A-F Only)

FSCI 399—INDEPENDENT STUDY/ SPECIAL PROBLEMS  2½ UNITS
Formerly listed as: FSCI - 399A—Independent Study/ Special Problems
Recommended for Success: Before enrolling in this course, students are strongly advised to
students are strongly advised to have completed their firefighter probation or have supervisor’s
approval for enrollment if still on probation.
Short courses on mandated fire agency training needs. Emphasis on new statutory laws, informa-
tion and technology with direct impact on emergency operations and management. Content
varies with specific agency training and certification needs studied. Students may retest if required
by regulation. Student may repeat if required by regulation. Field trips might be required. (A-F Only)

FTECH (Fire Technology)
Dean: Maurice McKinnon, Ed.D.
Director: John Sola (209) 575-5701
Division Office: Regional Fire Training Center, 1220 Fire Science Lane
Phone: (209) 575-5701

FTECH 301XABC—INCIDENT COMMAND SYSTEMS  ½ - 3 UNITS
X=9 Lecture hours, A=18 Lecture hours, B=36 Lecture hours, C=54 Lecture hours
Limitations on Enrollment: Enrollment limited to students who are certified firefighters.
Provides description and detail of the Incident Command System (ICS) organization and operations
in supervisory roles on all types of emergency incidents. Materials fee required. Student may repeat
if required by regulation. Field trips may be required. (A-F or P/NP) Lecture

FTECH 310XABC—RESCUE SYSTEMS AND OPERATIONS  ½ - 3 UNITS
X=9 Lecture hours, A=18 Lecture hours, B=36 Lecture hours, C=54 Lecture hours
Limitations on Enrollment: Enrollment limited to students who are able to provide Low Angle
Rescue (LAR) course certification.
Principles and practices of basic fire service, how to safely and effectively participate in rescue
operations. Materials fee required. Student may repeat if required by regulation. (A-F or P/NP) Lecture

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED. NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
## GEOG (Geography)

**Dean (Interim):** John Williams  
**Division Office:** Founders Hall Room 100  
**Phone:** (209) 575-6129  
**Division website:** mjc.edu/prospective/programs/bbss/  
**Instructors:** Cece Hudelson-Putnam

### GEOG 101 — PHYSICAL GEOGRAPHY  
**3 UNITS**  
54 Lecture Hours.  
Recommended for Success: Before enrolling in this course, students are strongly advised to before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101. Physical elements of geography; emphasis on earth–sun relationships, weather, climate, and vegetation patterns, degradation processes, landforms created through glaciation, water, wind and tidal activity, and human impact upon the environment. Field trips might be required. (A-F or P/NP)  
**Transfer:** (CSU, UC) General Education: (MJC-GE: A) (CSU-GE: B1) (IGETC: 5A)

### GEOG 102 — CULTURAL GEOGRAPHY  
**3 UNITS**  
54 Lecture Hours.  
Recommended for Success: Satisfactory completion of ENGL 101  
Introduction to origins and global distribution of cultures. Examines cultural adaptations to the earth, human modifications of the landscape, and patterns of human organization as exemplified in population, agriculture, language, religion, political organization, popular culture, and economic development. Issues addressed include famine, political conflict, multiculturalism, suburban sprawl, industrial relocation and third world development. Lecture.  
**Transfer:** (CSU, UC)(CC GEOGR 12) General Education: (MJC-GE: B)(CSU-GE: D5)(IGETC: 4E)

### GEOG 103 — CALIFORNIA GEOGRAPHY  
**3 UNITS**  
54 Lecture Hours.  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 with a minimum grade of C or better.  
Introduction to California's unique geography, examining political, economic, cultural, physical, and historical processes and characteristics. Field trips may be required. (A-F or P/NP) Lecture.  
**Transfer:** (CSU, UC) General Education. (MJC-GE: B)(CSU-GE: D5)(IGETC: 4E)

### GEOG 104 — ECONOMIC GEOGRAPHY  
**3 UNITS**  
54 Lecture Hours.  
Introduction to economic geography. Examines patterns of global economic activity, resources, market locations, transportation, and corporate behavior. (A-F or P/NP) Lecture.  
Two completions allowed.  
**Transfer:** CSU UC General Education: (MJC-GE: B)(CSU-GE: D2, D5)(IGETC: 4E)

### GEOG 105 — INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS  
**3 UNITS**  
36 Lecture hours, 54 Lab hours  
Also offered as ENVS 109 — Introduction to Geographic Information Systems  
Introduction to Geographic Information Systems (GIS). GIS centers upon mapping as a tool for identifying and assessing the locations of human activity. Applications to business, economics, weather, geology, real estate, agriculture, etc. Students will create and evaluate databases which generate maps using ArcView. (A-F Only) Lecture/Lab.  
**Transfer:** (CSU, UC)(CC GEOGR 60)

### GEOG 110 — WORLD REGIONAL GEOGRAPHY  
**3 UNITS**  
54 Lecture Hours.  
Recommended for Success: Before enrolling in this course, students are strongly advised to complete English 101.  
Survey of the world’s major geographical regions and their physical, economic, political, and cultural characteristics. Emphasis is placed upon historical influences which explain current problems and conditions. (A-F or P/NP) Lecture.  
**Transfer:** (CSU, UC) General Education: (MJC-GE: B)(CSU-GE: D5)(IGETC: 4E)

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## GEOL (Geology)

**Dean:** Brian Sanders  
**Division Office:** Science Building, Room 126  
**Phone:** (209) 575-6173

### GEOL 160 — INTRODUCTION TO GEOLOGY  
**3 UNITS**  
54 Lecture hours  
Study of the composition of the Earth, and the physical and chemical processes which shape it. Topics include plate tectonics, volcanism, earthquakes, rocks and minerals, weathering, and erosion. (A-F or P/NP) Lecture.  
**Transfer:** (CSU, UC)(C-ID GEOL 100) General Education: (MJC-GE: A)(CSU-GE: B1) (IGETC: 5A)

### GEOL 161 — PHYSICAL GEOLOGY  
**4 UNITS**  
54 Lecture hours, 54 Lab hours  
Study of the physical and chemical processes that shape the earth, including plate tectonics, volcanism, weathering, and erosion; the composition of the earth, and geologic hazards such as mass wasting, flooding and earthquakes. Laboratory topics include rock and mineral identification, and the use of maps and aerial photographs to understand erosional and tectonic processes. Field trips may be required. (A-F or P/NP) Lecture /Lab.  
**Transfer:** (CSU, UC)(CC ESC 5) General Education: (MJC-GE: A)(CSU-GE: B1, B3) (IGETC: 5A, 5C)

### GEOL 165 — GEOLOGY OF CALIFORNIA  
**3 UNITS**  
54 Lecture hours  
Formerly listed as: GEOL 165: Geology of CA  
The geologic setting and evolution of California’s geologic provinces. Emphasis on processes that have and are still acting to shape the landscape: volcanism, earthquakes, and erosion. Field trips may be required. (A-F or P/NP) Lecture.  
**Transfer:** (CSU, UC)(C-ID GEOL 200) General Education: (MJC-GE: A)(CSU-GE: B1) (IGETC: 5A)

### GEOL 166 — HISTORICAL GEOLOGY  
**4 UNITS**  
54 Lecture Hours, 54 Lab Hours  
Introduction to the origin, development, and evolution of the earth and its inhabitants. Topics include the study of fossils and rocks, continents and ocean basins, geologic time, plate tectonics, climate change and mass extinctions. Laboratory utilizes rocks, fossils and stratigraphic principles to decipher ancient environments. Field trips might be required. (A-F or P/NP)  
**Transfer:** (CSU, UC) General Education: (MJC-GE: A)(CSU-GE: B1, B3) (IGETC: 5A, 5C)

### GEOL 171X,A,B — GEOLOGY FIELD STUDIES  
**½,1,2 UNITS**  
X=9 Discussion hours, A=18 Discussion hours, B=36 Discussion hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete or concurrently enroll in a geology or earth science course.  
Introduction to basic geological concepts through field trips to areas of geologic significance. Emphasis will be on the materials and structures that compose a landscape, and the history and evolution of the areas visited. Four completions allowed. Field trips are required. (A-F or P/NP)  
**Discussion /Discussion /Discussion Transfer:** (CSU, UC)(CC ESC 35)

### GEOL 174 — GEOLOGY SUMMER FIELD STUDIES  
**3 UNITS**  
54 Discussion hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete a college-level course in geology or Earth science.  
Application of principles of geology through extended field studies at selected sites in the western United States and other geologically significant locations. Skills developed in rock, mineral, and fossil identification, and use of geological field equipment. Requires ability to work and study under rigorous conditions.  
Two completions allowed. Field trips may be required. (A-F or P/NP)  
**Discussion Transfer:** (CSU)

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### GERM (German)

**Dean:** Patrick Bettencourt  
**Division Office:** Founders Hall Room 200  
**Phone:** (209) 575-6149  
**Division website:** www.mjc.edu/current/programs/divdeps/litlang/  
**Instructors:** Gabriele Steiner

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**CURRICULUM CHANGES "IMPACT" PROOF**

**INACTIVATED**

**NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER REVIEW**
The Guidance program is an integral part of the counseling services. Students who take guidance skills courses will learn to:

- Acquire, organize and demonstrate problem-solving and decision-making skills;
- Explore, evaluate and pursue career and educational options;
- Acquire, organize and demonstrate problem-solving and decision-making skills;
- Develop social, intellectual and emotional competencies; develop needed skills and strategies to maximize the educational experience;
- Understanding themselves, others and their environment to enable them to develop individual value systems and life styles.

One of the following courses must be taken to fulfill the guidance graduation requirement:

- **GUIDE 109—INTERNATIONAL STUDENT/NEW AMERICAN FOCUS** 1 UNIT

  18 Lecture hours
  Required for Success: Before enrolling in this course, students are strongly advised to be eligible for ESL 45 and ESL 46.

  Education and career planning for students whose previous education has been outside the United States. Acquaints students with the college, its curriculum, facilities, services, academic regulations, vocational and certificate programs, degree and transfer requirements. Reviews extracurricular activities, personal adjustment, American customs, culture shock, survival techniques and immigration regulations. A detailed educational plan is developed. Students must complete a conference with a counselor during the semester. Lecture. MJC Guidance. **Transfer:** CSU

- **GUIDE 110—EDUCATIONAL PLANNING** ½ UNIT

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

- **GUIDE 111—CAREER AWARENESS** 1 UNIT

  18 Lecture hours
  Assists students in exploring career alternatives through development of skills necessary for the research, selection and planning of a life-long career. The role of attitudes, interests, values and skills will be addressed. Interests, aptitude and values tests may be used. Important aspects of occupational choice will be covered along with occupational information. An educational plan will be developed. Students must complete a conference with a counselor during the semester. Materials Fee Required (P/NP Only) Lecture. MJC Guidance. **Transfer:** CSU (CC GUIDE 11)

- **GUIDE 112—JOB HUNTING SKILLS** ½ UNIT

  9 Lecture hours
  Formerly listed as GUIDE 112 - Job Employment Skills

  Realities of the job market and techniques for conducting a successful job search. Emphasis on learning about job application procedures, resume writing and interviewing skills. Students must complete an appointment with a counselor during the semester. Fees Waived (P/NP Only) Lecture. MJC Guidance. **Transfer:** CSU (CC GUIDE 79)

- **GUIDE 116—ORIENTATION FOR RE-ENTRY ADULTS** 2 UNITS

  36 Lecture hours
  Recommended for Success: Before enrolling in this course, students are strongly advised to speak, write, and understand the English language.

  Designed to help new or returning adult students be successful in college after having been out of school for a number of years. Acquaints students with college services, programs, and requirements, and numerous topics related to academic and career success. These topics include adult transitions, self exploration, educational planning, study skills, time management, learning styles, goal setting, career exploration, and other topics related to student success. Students must complete a conference with a counselor during the semester. An educational plan will be developed based on student’s academic and career goals. (P/NP Only) Lecture /Discussion. MJC Guidance. **Transfer:** CSU

- **GUIDE 120—SUCCESS STRATEGIES FOR TRANSFER STUDENTS** 3 UNITS

  54 Lecture hours
  Increase success in college and in life by assisting student in obtaining skills and techniques necessary to reach personal goals. Explore personality, interests and values to increase self-understanding and select an appropriate major and career. Topics include: educational planning and transfer strategies, motivation and learning styles, research strategies, note-taking, subject-specific study techniques, time management, and textbook study methods. Field trips may be required. (A-F or P/NP) Lecture. **Transfer:** CSU (CC GUIDE 120)

The Guidance program is an integral part of the counseling services. Students who take guidance skills courses will learn to:

- Acquire, organize and demonstrate problem-solving and decision-making skills;
- Explore, evaluate and pursue career and educational options;
- Acquire, organize and demonstrate problem-solving and decision-making skills;
- Develop social, intellectual and emotional competencies; develop needed skills and strategies to maximize the educational experience;
- Understand themselves, others and their environment to enable them to develop individual value systems and life styles.
HE (Health Education)

Dean: William Kaiser
Division Office: PE Office Building, Room 105
Phone: (209) 575-6269
Division website: www.mjc.edu/athletics

Instructors: Cheryl Mulder, David Shrock, Demetrius Snare, Eric Fischer, Jim Stevens, Mary Shica, Michael Girardi, Milan Motroni, Paul Brogan, Shawn Black, Steve Anastolous

The expanding field of health education through public or community agencies and the schools will require trained professionals for positions of leadership and supervision. The professionals will deal with such complex issues as physical and mental well-being, substance abuse, exercise, environmental and consumer health, disease control, human sexuality, family relations, death and dying, first aid and emergency care. Since careers in the Health Education field usually require a minimum of a four-year degree, health education majors at MJC are given an introduction to health through basic health and safety courses and are advised to follow general education and transfer requirements for four-year colleges and universities.

HE 100—STANDARD FIRST AID/CPR 1 UNIT
54 Lecture Hours
A basic course for an Emergency Services professional or the citizen who wishes to maintain or acquire cardio pulmonary resuscitation (CPR) and basic first aid certification. Successful course completion results in certification in CPR and Standard First Aid. Materials fee required. Four completions allowed. (A-F or P/NP) Lecture. Transfer: (CSU, UC) (CC HHP 62)

HE 101—EMERGENCY RESPONSE/CPR FPR 3 UNITS
54 Lecture Hours
Course designed to provide the First Responder with advanced first aid capabilities necessary in an emergency to help sustain life, reduce pain, minimize the consequences of injury or sudden illness and to provide emergency care of the sick and injured. CPR for the Health Care Provider and First Responder certification issued upon satisfactory completion. Materials fee required. Four completions allowed. (A-F or P/NP) Lecture. Transfer: (CSU, UC) (CC EMS 13)

HE 110—HEALTHFUL LIVING 3 UNITS
54 Lecture Hours
A consideration of factors in the selection of a plan for healthful living. Emphasis on self-assessment through gathering and analyzing information while setting new health goals. Focus is placed on emotional, physical, social, spiritual, intellectual and environmental wellness in achieving human potential. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: E) (CSU-GE: E)

HE 111—WOMEN’S HEALTH ISSUES 3 UNITS
54 Lecture Hours

HE 118—EXERCISE AND NUTRITION FOR HEALTHY LIVING 3 UNITS
54 Lecture Hours
Formerly listed as: HE - 118: Exercise and Nutrition for Healthy Living

HE 108A,B,C—SPECIAL TOPICS AND PROBLEMS 1-2 UNITS
A=10 Lecture Hours; B=36 Lecture Hours; C=54 Lecture Hours
Participation in discussion, analysis, and evaluation of a special topic or problem in health education. Topics announced each semester in schedule of classes. Field trips may be required. Four completions allowed. Lecture. Transfer: (CSU)

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED: NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW

HIST (History)

Dean Interim: John Williams
Division Office: Founders Hall 100
Phone: (209) 575-6129
Division website: mjc.edu/prospective/programs/bbss/

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

COURSES OFFERED

HIST 101—HISTORY OF THE UNITED STATES TO 1877 3 UNITS
54 Lecture Hours
Formerly listed as: HIST 101 - History of the United States Through Reconstruction Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

The survey of United States history to 1877 exploring the intersection of politics, the economy, society, culture and geography. Periods covered include: Reconstruction, late-19th century industrialization, the American West, imperialism, the Progressive Era, World War I, the 1920s, the 1930s and the Great Depression, World War II, the Cold War, civil rights, and modern America. (A-F or P/NP) Lecture. Transfer: (CSU, UC) (CC HIST 16) General Education: (MJC-GE: B) (CSU-GE: D6) (IGETC: 4F) (AI: Group A, C)

HIST 102—HISTORY OF THE UNITED STATES SINCE 1865 3 UNITS
54 Lecture Hours
Formerly listed as: HIST - 102: History of the United States Post Civil War Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

The survey of United States history from 1865 through contemporary period, exploring the intersection of politics, the economy, society, culture and geography. Periods covered include: Reconstruction, late-19th century industrialization, the American West, imperialism, the Progressive Era, World War I, the 1920s, the 1930s and the Great Depression, World War II, the Cold War, civil rights, and modern America. (A-F or P/NP) Lecture. Transfer: (CSU, UC) (CC HIST 17) General Education: (MJC-GE: B) (CSU-GE: D6) (IGETC: 4F) (AI: Group A, C)

HIST 104—WESTERN CIVILIZATION TO 1650 3 UNITS
54 Lecture Hours
Formerly listed as: HIST 104 - Western Civilizations Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

An introduction to Western Civilization from the Neolithic to the Reformation. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B, C) (CSU-GE: C2, D6) (IGETC: 3B, 4F)

HIST 105—WESTERN CIVILIZATION SINCE 1650 3 UNITS
54 Lecture Hours
Formerly listed as: HIST 105 - Western Civilization Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

A comparative and interactive investigation and analysis of World Civilization as related to the development of the modern world. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B, C) (CSU-GE: C2, D6) (IGETC: 3B, 4F)

HIST 106—WORLD CIVILIZATION TO THE 17TH CENTURY 3 UNITS
54 Lecture Hours
Formerly listed as: HIST - 106: History of the United States Post Civil War Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.

A comparative study of World Civilizations from 1500 to the present. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B, C) (CSU-GE: C2, D6) (IGETC: 3B, 4F)
HIST 110—20TH CENTURY AMERICA  3 UNITS  
S4 Lecture hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.  
Explores the political, economic, social and cultural developments of the 20th century. Periods covered include: the industrial revolution, the cold war, the civil rights movement, and the post-WWII period. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F)

HIST 111—SOCIAL AND CULTURAL HISTORY OF THE UNITED STATES PRIOR TO THE 20TH CENTURY  3 UNITS  
S4 Lecture hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.  
The first in a two-part series, HIST 111 examines the development of American society and culture prior to the 20th century. HIST 111 specifically analyzes the formation and evolution of American social institutions in response to indigenous American and immigrant European and African cultures. This course compares interpretations of race, gender, class, political economy and human rights to examine social and cultural transformations in America. Emphasis is placed on the evolution of State and Federal constitutional government and the principle of inclusion. Contemporary local, State, and Federal government developments are analyzed historically in relation to political and social movements as a foundation for contemporary social activism. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F) (AI: Group a)

HIST 115—ECONOMIC HISTORY OF THE UNITED STATES  3 UNITS  
S4 Lecture hours  
Recommended for Success: Satisfactory completion of ENGL 101 Also offered as ECON 115.  
Analysis of origins and development of business, labor and agriculture from the colonial period to the present. Emphasis on the Federal government's part in the development and regulation of business, labor and agriculture, the government's role in the national economic process. Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D2, D6) (IGETC: 4B, 4F) (AI: Group a)

HIST 116—WOMEN IN AMERICAN HISTORY  3 UNITS  
S4 Lecture hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.  
Study of the history of women in the United States, their experiences and contributions from the pre-colonial period to the present. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D4, D6) (IGETC: 4D, 4F) (AI: Group a)

HIST 119—SOCIAL AND CULTURAL HISTORY OF 20TH CENTURY AMERICA  3 UNITS  
S4 Lecture hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.  
The second in a two-part series, HIST 119 examines the development of American society and culture in the 20th century. HIST 119 specifically analyzes American political and economic institutions and their interaction with Indigenous American, Latino/Chicana, African American, European, and Asian American ethnicities. Particular attention is given to various historic and contemporary civil and human rights movements. Critical evaluation of the developing role of local, State, and Federal government in the inclusion of ethnic and gender participation. The gradual movement toward full protection of all peoples of America under State and Federal Constitutional law is emphasized. The effects of U.S. foreign and domestic policies on first and third world nations will be evaluated. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F) (AI: Group a)

HIST 125—HISTORY OF MEXICO  3 UNITS  
S4 Lecture hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.  
Survey of Mexican history from the first Mesoamerican civilizations through the present, exploring the intersection of politics, the economy, society, culture, and geography. Periods covered include: Mesoamerica, the colonial period, independence, La Reforma, the Porfiriato, the Mexican Revolution and its aftermath, and the post-WWII period. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D6) (IGETC: 4F)

HIST 128—HISTORY OF AMERICAN FAR WESTERN FRONTIER  3 UNITS  
S4 Lecture hours  
A regional history of frontier life in the trans-Mississipppi West during the 19th century, including early exploration through the fur trade, territorial expansion, and the mining and farming frontier. Special emphasis is given to the contribution of Native Americans and Asian, African, Iberian and Mexican cultures in shaping the character of the American West. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F)

HIST 129—HISTORY OF CALIFORNIA  3 UNITS  
S4 Lecture hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.  
Survey of California history from the first peoples to inhabit this region through the present. The course explores the intersection of politics, the economy, society, culture, and geography and the way it has contributed to the formation of contemporary California. Emphasis comparing and contrasting the historical development of California to that of the rest of the nation. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D6) (IGETC: 4F)

HIST 145—HISTORY OF LATIN AMERICA  3 UNITS  
S4 Lecture hours  
Formerly listed as HIST 145 - Latin American History Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.  
Survey of Latin American history through the present, emphasizing changes and continuities in the political, economic, social, and cultural life of the continent. Examines issues such as the colonial legacy, development and underdevelopment, ideas of race and ethnicity, relationships to the outside world, the construction of the nation-state, gender, and social, economic, and political movements. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D6) (IGETC: 4F)

HIST 154—AFRICAN AMERICANS THROUGH THE 19TH CENTURY  3 UNITS  
S4 Lecture hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.  

HIST 155—AFRICAN AMERICANS IN THE 20TH AND 21ST CENTURIES  3 UNITS  
S4 Lecture hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.  
Second in a two-part series. Examines the political, economic, technological, and social history of African Americans from the end of the 19th century through the early 21st century. Specific analysis of complex relationships between European Americans, Latinos/Chicanos, African Americans, and African American ethnic groups. Inquiry into race, gender, and class disparities. Ongoing struggles for ethnic self-determination and inclusion are contrasted against institutional resistance and social marginalization. Emphasis on the evolution of State and Federal Constitutional government and the struggle for ethnic parity, disparility, and inclusion. Contemporary and historic local, State, and Federal government developments are analyzed in relation to political and social movements as a foundation for contemporary activism for civil rights, human rights, and economic justice. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE: D3, D6) (IGETC: 4C, 4F) (AI: Group a)
HUMSR (Human Services)

Dean: Maurice McKinnon, Ed.D.
Division Office: Glacier Hall, Room 165
Phone: (209) 575-6864
Instructors: Kimberly Kennard

The Modesto Junior College Human Services programs provide knowledge and skills involved with the delivery of a wide variety of social services through various community social work and counseling agencies.

The two-year programs are designed to prepare students for entry-level employment in human service organizations as well as to upgrade current employees. They also provide a basis for future academic training leading to degrees in Social Work, Sociology, and Psychology.

### HUMSR 101—INTRODUCTION TO HUMAN SERVICES 3 UNITS

**Lecture Hours**

Introduction to the field of human services, and the role of paraprofessional workers in private and public settings on a local, state, and national level. The class provides an overview of the historical development of human services, professional values, processes, clinical skills, theoretical foundations, and current social issues. Field trips might be required. (A-F or P/NP) Transfer: CSU.

### HUMSR 103—INTRODUCTION TO HUMAN SERVICE CAREERS ½ UNIT

**Lecture Hours**

Introduction to careers in the human services profession, personal qualities, clinical skills, and academic requirements necessary for entry-level human service positions. (A-F or P/NP) Lecture. Transfer: CSU.

### HUMSR 104—AGING IN AMERICA 3 UNITS

**Lecture Hours**

Analysis of the aging process from a multidisciplinary approach, including gerontology, sociology, human services, psychology, and physiology. Students will have an opportunity to explore their beliefs, feelings, and values regarding the aged population. Field trips might be required. (A-F or P/NP) Transfer: CSU.

### HUMSR 110—INTRODUCTION TO INTERVIEWING, COUNSELING 3 UNITS

**Lecture Hours**

Introduction to the principles and practices of interviewing, counseling, and theoretical frameworks. Designed to assist in the preparation of paraprofessionals in the Human Services and other interrelated fields. Recognition and understanding of social problems, and the impact on human behavior. Lecture. (A-F or P/NP) Transfer: CSU.

### HUMSR 111—COUNSELING IN CHEMICAL DEPENDENCY 3 UNITS

**Lecture Hours**

Concepts of counseling, therapy, personality development, and theoretical frameworks relevant to chemical dependency. Designed to assist the paraprofessional in the chemical dependency profession and other related fields. Clinical skills, assessment tools, techniques, crisis intervention strategies, and resolution will be covered. Lecture. (A-F or P/NP) Transfer: CSU.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td>HUMSR 113</td>
<td>CO-OCCURRING DISORDERS</td>
<td>3</td>
<td>Introduction to the treatment needs of individuals who are diagnosed with a psychiatric disorder in combination with a chemical dependency disorder. Students will learn to identify, assess, and offer treatment to those with a dual diagnosis/co-occurring disorder. Field trips may be required. (A-F or P/NP) Lecture Transfer: CSU</td>
</tr>
<tr>
<td>HUMSR 114</td>
<td>DEATH AND DYING</td>
<td>3</td>
<td>Exploration of feelings, belief systems, values and theoretical comprehension about death, dying, and the bereavement process from a historical, multidisciplinary, and cultural perspective. Topics include: coping mechanisms, counseling the dying, suicide, grief and bereavement, terminal illness, and multi-cultural concepts about death. (A-F or P/NP) Lecture Transfer: CSU (CC SOcio 28) General Education (MUC-GE-B)</td>
</tr>
<tr>
<td>HUMSR 116</td>
<td>DRUGS AND ALCOHOL IN SOCIETY</td>
<td>3</td>
<td>An introductory course that focuses on drug and alcohol use, abuse, and dependency in society. Covers causes for addiction, current trends, historical dimensions, prevention, treatment, multicultural considerations, and corresponding myths regarding chemical dependency and psychoactive drugs. Lecture (A-F or P/NP) Transfer: CSU</td>
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<tr>
<td>HUMSR 117</td>
<td>INTERVENTION AND TREATMENT STRATEGIES IN CHEMICAL DEPENDENCY</td>
<td>3</td>
<td>Continued development in the application of therapeutic techniques, clinical skills, and strategies relative to the treatment of chemical dependency. Emphasizes the intervention process, assessment tools, crisis counseling, theoretical foundations, recovery dynamics, and family systems. Lecture (A-F or P/NP) Transfer: CSU</td>
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<tr>
<td>HUMSR 118</td>
<td>PHARMACOLOGY OF ABUSED SUBSTANCES</td>
<td>3</td>
<td>An introduction to psychopharmacology and the process of drug addiction. Topics include classification of abused and psychotherapeutic drugs, basic principles of pharmacology, behavioral and psychological effects of drugs, major neurotransmitter systems and how they are influenced by drugs. Lecture Transfer: CSU</td>
</tr>
<tr>
<td>HUMSR 119</td>
<td>INTRODUCTION TO GROUP LEADERSHIP AND GROUP PROCESS</td>
<td>3</td>
<td>An introduction to the dynamics of group interaction with an emphasis upon the individuals' subjective experience as the group studies itself (under supervision). The factors involved in problems of communication, effective emotional responses, and personal growth will be highlighted. Emphasis on group process as a means of changing individual behavior. Field trips may be required. (A-F only) Lecture Transfer: CSU</td>
</tr>
<tr>
<td>HUMSR 120</td>
<td>PROFESSIONAL DEVELOPMENT IN THE HELPING PROFESSIONS</td>
<td>3</td>
<td>Focuses on the application of clinical skills, theoretical foundations, strategies, techniques, ethical standards, and professional development in the Human Services and Chemical Dependency profession. Lecture (A-F or P/NP) Transfer: CSU</td>
</tr>
<tr>
<td>HUMSR 121</td>
<td>PSYCHOSOCIAL REHABILITATION</td>
<td>3</td>
<td>An introduction to the field of psychosocial rehabilitation and its application in the public mental health system. The class provides an overview of the core practice models, principles, theories, and methods in psychosocial rehabilitation as related to the social sciences, and gives students a broad view of best clinical practices, social and psychological considerations in working with individuals who have psychiatric disorders using sociological concepts, theories, and methodology. Field trips may be required. Lecture (A-F or P/NP) Transfer: CSU (CC SOcio 28) General Education (MUC-GE-B)</td>
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<tr>
<td>HUMSR 122</td>
<td>PSYCHOSOCIAL REHABILITATION PRACTICE</td>
<td>3</td>
<td>Continued development in the field of psychosocial rehabilitation, and its application in the public mental health system. Designed to provide opportunities for students to practice and apply models of psychosocial rehabilitation, principles, theories, and methods related to the social sciences with individuals who have psychiatric disorders using sociological concepts and methodology. Course is not repeatable. Field trips may be required. Lecture (A-F or P/NP) Transfer: CSU (CC SOcio 28) General Education (MUC-GE-B)</td>
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<tr>
<td>HUMSR 123</td>
<td>HUMAN SERVICES PRACTICUM</td>
<td>1</td>
<td>An introduction to the treatment needs of individuals who are diagnosed with a psychiatric disorder in combination with a chemical dependency disorder. Students will learn to identify, assess, and offer treatment to those with a dual diagnosis/co-occurring disorder. Field trips may be required. (A-F or P/NP) Lecture Transfer: CSU</td>
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<tr>
<td>IIS 13</td>
<td>IMPROVING LEARNING POTENTIAL</td>
<td>2</td>
<td>Specialized computer-assisted instruction for students with disabilities to maximize their learning potential and increase academic efficiency. Four completions allowed. Lecture/Laboratory. (P/NP Only)</td>
</tr>
</tbody>
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INTDS (Interior Design)

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

INTDS 10 A, B—INTERIOR DESIGN OPEN LAB 1, 2 UNITS
36 Lecture hours
Transfer: CSU

Course content within the Interior Design program emphasizes the home and the workplace as the environment created by individuals in response to their family and work interests and needs. Focus is placed not only on the physical set-up of the structure and interior but also on the psychological and sociological effects of the environment on the people who function within it. Product knowledge is emphasized as students learn to keep up with what is in demand as lifestyles and tastes change.

INTDS 100—CAREERS IN DESIGN 2 UNITS
54 Lecture hours
Transfer: CSU

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete READ 82 and ENGL 50 and MATH 20.

Introduction to educational and interior design employment opportunities. Includes portfolio and educational plans, development and curriculum requirements that pertain to educational goals as they relate to interior design major. Emphasizes personal, educational, and professional qualifications required for success in obtaining, maintaining, and advancing in the field of interior design and related professions. Field trips may be required. Lecture. (A-F or P/NP). Transfer: CSU.

INTDS 120—COLOR THEORY AND APPLICATION 3 UNITS
54 Lecture hours
Transfer: CSU

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete READ 82 and ENGL 50 and MATH 20.

Basic color theory and its application to the built environment. Development of skills and knowledge applicable to interior architecture, decorative arts, and related fields of design, such as product development. Exploration of the impact of cultural heritage, the effects of environment, and the psychological implications related to the application and use of color. Field trips may be required. Lecture/Laboratory. (A-F or P/NP). Transfer: CSU.

INTDS 130—FABRICS FOR INTERIORS 3 UNITS
54 Lecture hours
Transfer: CSU

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete READ 82 and ENGL 50 and MATH 20.

Introduction to natural and manufactured textiles used for interior residential and non-residential furnishings, Analysis of fibers and yarns, fabric structure, design, methods of color application, and finishing treatments. Emphasis on selection, use, aesthetics, suitability, and care. Government legislation, sustainable design practices, testing for performance, and new technologies, including related professional practices. Field trips may be required. Lecture/Laboratory. (A-F or P/NP). Transfer: CSU.

INTDS 140—RENDERING AND RAPID VISUALIZATION 3 UNITS
36 Lecture hours, 54 Lab hours
Transfer: CSU

Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete READ 82 and ENGL 50 and MATH 20.

Introduction to the principles and techniques used in interior illustration. Emphasis on drawing in perspective using light, shade, and shadow, and pen-and-ink rendering of furniture, interior finishes, and accessories. May be completed up to 2 times. Field trips may be required. Lecture/Laboratory. (A-F or P/NP). Lecture: Transfer: CSU.

INTDS 145—FUNDAMENTALS OF LIGHTING DESIGN 3 UNITS
54 Lecture hours
Transfer: CSU

Fundamentals of lighting design, theory, and application, including both aesthetic and technical considerations. Basic study of how light affects color and vision. Survey of lighting techniques, codes, and energy efficient practices for interior designers. Field trips may be required. (A-F or P/NP). Lecture: Transfer: CSU.

INDIS (Interdisciplinary Studies)

The Interdisciplinary Studies Program emphasizes critical thinking, communication skills, and independent work. Students are accepted into the program not solely on the basis of past achievement but, most importantly, on their willingness to become members of an intellectually stimulating, interactive learning community.

INDIS 100—INTRODUCTION TO HONORS SCHOLARSHIP 3 UNITS
54 Lecture hours
Transfer: CSU

Enrollment limited to those who have been admitted to the Honors program. Interpersonal communication theory and its practical application. Forms of philosophical inquiry that are applicable to the humanities, social sciences, arts, and physical sciences as well as their ethical and political applications. Library and information sources, including development of research strategies, and the retrieval, evaluation, and use of information. Lecture. (A-F only)

Transfer: CSU.

INDIS 150—ADAPTED KEYBOARDING 2 UNITS
18 Lecture hours, 54 Lab hours
Non-degree course.

Designed to teach keyboarding basics to students with disabilities who must use assistive technologies for successful access to the keyboard or monitor and/or are unable to compete successfully in mainstream keyboarding courses. Four completions allowed. Lecture/Laboratory.

INDIS 160—COMPUTER ACCESS 1 2 UNITS
27 Lecture hours, 27 Lab hours
Non-degree course.

Designed for students with visual, physical, acquired brain injury, language impairment, learning disabilities or deafness. Provides training in the use of computer access technologies which enhance a disabled student’s ability to access and use microcomputers. Four completions allowed. Lecture/Laboratory.

INDIS 180—COMPUTER ACCESS PROJECTS 2 UNITS
18 Lecture hours, 54 Lab hours
Non-degree course.

Designed for students with disabilities who require access to specialized assistive technologies in order to complete assignments for other classes in which they are concurrently enrolled. (A-F or P/NP). Four completions allowed. Lecture/Laboratory.

INDIS 200—MATH STRATEGIES FOR DISABLED STUDENTS 1 UNIT
18 Lecture hours
Non-degree course.

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

INDIS 210—MAKING THE MOVE: TRANSITION TO COLLEGE 1 UNIT
18 Lecture hours
Non-degree course.

Intended for new and re-entry students with disabilities who need additional instruction and compensatory strategies to learn and be successful within the traditional classroom. Specialized instruction will occur in disability awareness and in formulating strategies for success in the college environment. Four completions allowed. Lecture.

CURRICULUM CHANGES “IMPACT” PROOF

INACTIVATED: NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW

INTDS COURSES OFFERED
INTDS 150—HISTORY OF INTERIORS/DECORATIVE ARTS 1  3 UNITS
54 Lecture hours
Overview of the development of interior architecture and furniture styles of the world from Antiquity to the Classical Revival period of the nineteenth century. Covers dominant social, economic, technological influences, and innovations affecting design and development of specific styles and periods. Description of dominant influences and characteristics of interiors, furniture, ornamental design, and decorative arts, architecture, and textiles. Field trips may be required. (A-F or P/NP). Lecture. Transfer: CSU UC General Education: (MJC-GE) (CSU-GE: C1)

INTDS 155—HISTORY OF INTERIORS DECORATIVE ARTS 2  3 UNITS
54 Lecture hours
Survey of the historical relationship between interior architecture, furniture, and decorative arts. Overview of styles from the Classical Revival period of the nineteenth century through the present time. Social, economic, technological influences and innovations are emphasized. Field trips may be required. Lecture. (A-F or P/NP). Transfer: CSU UC General Education: (MJC-GE)

INTDS 160—ASIAN DESIGN AND DECORATIVE ARTS  3 UNITS
54 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete READ 82  and MATH 20. Broad survey of historic and contemporary Asian decorative arts, architecture, interior, and landscape design. Introduction to the influence of trade, international exhibitions, and globalization on Western design and manufacturing, including the Asian inspired works of Western architects and designers. Survey of Asian motifs, materials, color schemes, and resources. Field trips may be required. Lecture. Laboratory. (A-F or P/NP). Transfer: CSU

INTDS 180—UNIVERSAL DESIGN FOR HEALTH, SAFETY, & WELFARE  3 UNITS
54 Lecture hours
Formerly listed as INTDS 180—Barrier Free Design: Codes & Regulations
Global design decisions related to environmental, social, cultural, economic, and psychological needs. Concepts of universal, accessible, adaptable, barrier-free, aging-in-place, and lifespan design. Related ADA guidelines, local, state, and federal codes will be discussed. Includes survey of appropriate interior finishes, materials and resources. Space planning considerations for specific needs, issues relating to aging population and life style. (A-F or P/NP). Lecture. Transfer: CSU

INTDS 190—SUSTAINABLE AND GREEN DESIGN  3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete READ 82  and MATH 20 and ENGL 50. Overview of environmentally responsible design, building practices, systems, and materials with an emphasis on residential construction and interiors. Field trips may be required. (A-F or P/NP). Lecture. Transfer: CSU

INTDS 200—INTERIOR DESIGN FUNDAMENTALS  3 UNITS
54 Lecture hours
Overview of interior design and furnishings. Study and application of principles of color and design, period influences, selection and arrangement of decorative materials, organized selection of furnishings and materials. Includes consumer and socioeconomic considerations. Field trips may be required. Lecture. Transfer: CSU

INTDS 210—INTRODUCTION TO SALES & MARKETING FOR DESIGN  3 UNITS
54 Lecture hours
Introduction to sales psychology and the principles of marketing and business development for design. Increasing business in the workplace by building client relationships, understanding client needs and wants, and finding a niche. Focus on marketing methods, branding, ethics, selling, design services, communication and presentation techniques, and effective use of technology. Field trips may be required. Lecture. (A-F or P/NP). Transfer: CSU

INTDS 215—INTERIOR DESIGN STUDIO 1  2 UNITS
10 Lecture hours, 54 Lab hours
Corequisite: Satisfactory completion of or concurrent enrollment in INTDS 200. Designed to apply concepts and theories presented in the lecture course, INTDS 200. Fundamentals of Interior Design. Emphasizes the design process in developing solutions for design projects. Develops skills for using visual and oral communication tools for client presentations. Field trips may be required. A-F or P/NP Lecture. Laboratory. Transfer: CSU

INTDS 220—INTERIOR FINISHES CONSTRUCTION MATERIALS  3 UNITS
54 Lecture hours
Analysis, application and evaluation of the materials and components of Interior Design and Architecture. Emphasis will be placed on the selection, specification and estimation of cost and installation criteria. Introduction to local and regional design resources, the influence of style and innovations in technology and sustainability. Flooring, paint and wall coverings, window treatments, textiles, furnishings and various surface materials will be included. Field trips may be required. (A-F or P/NP) Lecture. Transfer: CSU

INTDS 230—DRAFTING FOR INTERIORS  36 Lecture hours, 54 Lab hours
Introduction to tools and techniques specific to drafting of interior spaces. Development of floor plans, sections, elevations, cabinetry and reflected ceiling plans relating to interior design. Incorporation of space planning, ADA guidelines, building codes, concepts of universal and lifetime design, and visual presentations. (A-F or P/NP) Field trips may be required. Lecture/Laboratory. Transfer: CSU

INTDS 235—SPACE PLANNING  3 UNITS
54 Lecture hours
Formerly listed as Residential Space Planning
Research and development of design solutions based upon human factors, codes, and interior environmental issues. Application of the design process to interior design projects. Structural and non-structural components of interior environments are included. Skills in drafting and presentation techniques are emphasized. Field trips may be required. (A-F or P/NP) Lecture. Transfer: CSU

INTDS 245—KITCHEN AND BATH DESIGN  3 UNITS
54 Lecture hours, 54 Lab hours
Overview of the basic principles of kitchen and bath design and space layout, including drawings, floor plans and elevations to scale. Selection and evaluation of counter-top and materials for required. Satisfactorily complete MATH 10 or qualify through the MJC assessment process. Field trips may be required. (A-F or P/NP). Lecture. Transfer: CSU

INTDS 270—BUSINESS AND PROFESSIONAL PRACTICES  3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 10 or qualify through the MJC assessment process. The business and professional management of an interior design practice, including legal issues, business and professional management of an interior design practice, including legal issues, project management, and management of an interior design practice, including legal issues, project management, and business practices. Introduction to field-specific software for management. Emphasis placed upon creating a business plan, developing contracts, choosing an appropriate business format, and licensing alternatives. Wholesale resource development procedures and introduction to professional examinations are included. Field trips may be required. Lecture. (A-F or P/NP). Transfer: CSU

ITAL 51—INTRODUCTION TO PRACTICAL ITALIAN 1  3 UNITS
54 Lecture hours
Introduction to the essentials of spoken and written Italian with emphasis on daily life situations, travel, and occupation. (A-F or P/NP) Field trips may be required. Lecture.

ITAL 52—INTRODUCTION TO PRACTICAL ITALIAN 2  3 UNITS
54 Lecture hours
Recommended for Success: Satisfactory completion of ITAL 51. Continuation of ITAL 51. Review and expansion of essentials of spoken and written Italian. (A-F or P/NP) Field trips may be required. Lecture.

ITAL (Italian)
Dean: Patrick Bettencourt
Division Office: Founders Hall, Room 200
Phone: (209) 575-6149
Division website: www.mjc.edu/current/programs/divdeps/litlang/
Instructors: Gabriele Steiner

ITAL 51—INTRODUCTION TO PRACTICAL ITALIAN 1  3 UNITS
54 Lecture hours
Introduction to the essentials of spoken and written Italian with emphasis on daily life situations, travel, and occupation. (A-F or P/NP) Field trips may be required. Lecture.

ITAL 52—INTRODUCTION TO PRACTICAL ITALIAN 2  3 UNITS
54 Lecture hours
Recommended for Success: Satisfactory completion of ITAL 51. Continuation of ITAL 51. Review and expansion of essentials of spoken and written Italian. (A-F or P/NP) Field trips may be required. Lecture.

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED- NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
ITAL 101—ITALIAN 1  
90 Lecture Hours
Fundamentals of spoken and written Italian. Introduction to Italian cultures. Equivalent to the satisfactory completion of two years of high school Italian. Field trips are not required. (A-F or P/ NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C2) (IGETC: 6A)

LIBR (Library and Information Technology)

Acting Dean: Patrick Betencourt
Division Office: East Campus, Library 122
Phone: (209) 575-6235
Division website: www.library.mjc.edu
Instructors: Ellen Dambrosio, Iris Carroll, James Clarke, Kathleen Ennis, Sue Adler,
The division of Library & Information Technology offers a course that supports the information competencies applicable to college-level research and lifelong learning. This course is designed to benefit transfer students who want to develop research skills using the information resources and services found in college libraries, as well as lifelong learners seeking to acquire skills necessary to thrive in an information society. The Library & Information Technology course is transferable to four-year colleges and universities.

LIBR 100—RESEARCH CONCEPTS AND PRACTICE  
3 UNITS
54 Lecture hours
Formerly listed as: LIBR - 100: Research Methodology, LR - 100: Research Methodology
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.
Introduction to academic information sources, including traditional print resources, ebooks, online periodical and research databases, and the Web. Emphasis on the development of effective research strategies, and the retrieval, evaluation, and use of information for academic research assignments. (A-F or P/NP) Lecture
Transfer: (CSU, UC) General Education: (MJC-GE: D2)

MACH (Machine Tool Technology)

Dean: Pedro Mendez
Office: John Muir 258W
Phone: (209) 575-6332
Division website: www.mjc.edu/prospective/programs/teched/electech/
Instructors: Jeff Weaver
The Machine Tool Technology program provides training toward the acquisition of proficiency in the use of metal removal and metal forming machine tools. Training in calculations of cutting speeds and feeds, use of measuring tools, study of elementary metallurgy, and making adjustments are also emphasized. Special focus is given to care of equipment, orderliness, accuracy, speed, judgment, confidence and safe working habits.

MACH 211 D,E —MACHINE TOOL TECHNOLOGY 1  
4 - 5 UNITS
D= 54 Lecture hours, 54 Lab hours, E= 54 Lecture hours, 108 Lab hours
Formerly listed as: MACH - 211D: Machine Tool Technology 1
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 20 with a minimum grade of C or better, satisfactorily complete ESL 45 with a minimum grade of C or better and.
This class is intended to address the situation of the traditional student with little or no experience in the manufacturing areas of the economy. The study and application of basic measuring tools, (steel rulers, vernier calipers & micrometers), layout tools and hand tools are addressed. The theory and practice of the use of drilling machines, bandsaws, lathes and vertical milling machines are a primary focus. This course meets California apprenticeship standards. Materials Fee Required Field trips might be required. (A-F or P/NP) Lecture /Lab Lecture /Lab Transfer: (CSU)
MACH 212DE—MACHINE TOOL TECHNOLOGY 2
4 OR 5 UNITS
Formerly listed as: MACH - 212D: Machine Tool Technology 2
D=44 Lecture Hours, 44 Lab Hours, E=44 Lecture Hours, 44 Lab Hours
Prerequisite: Satisfactory completion of MACH 211 or MFGA 301.
This class is intended to address the situation of the traditional daytime student with little or no experience in the manufacturing areas of the economy and has completed MACH 211. The principles and fundamental use of precision grinders and advanced applications of the manual engine lathe and milling machine are a primary focus. Advanced levels of measuring systems, the study of basic metallurgy, and the techniques of heat treating to enhance the properties of metallic parts are addressed. Materials fee required. Field trips might be required. (A-F or P/NP) Transfer: CSU

MACH 213—MACHINE TOOL TECHNOLOGY 3
4 Units
Formerly listed as: MACH - 213D: Machine Tool Technology 3 - Manufacturing 36.00 Lecture Hours, 108.00 Lab Hours,
Prerequisite: Satisfactory completion of MACH 212 or MACH 302.
Theory and practice in the use of the dividing head, metric system, classes of fit, tool and cutter grinding, gear cutting, and dovetails. Carbide cutting tools emphasized. Exploration and study of manufacturing processes found in local industries. Materials fee required. Field trips might be required. (A-F or P/NP) Transfer: CSU

MACH 218—INTRODUCTION TO CNC LATHE PROGRAMMING 2 UNITS
18 Lecture hours, 54 Lab hours
Recommended for Success: Previous experience in the use of manual or CNC lathes.
The use of manual programming techniques to develop tool path codes required to produce products using two axis CNC turning equipment. Effective cutting speeds, feeds, and depth of cut for various machining operations. The use of “canned cycles” with word address programming as well as conversational programming format will be addressed. May be completed up to 2 times.
Field trips may be required. Lecture/Lab. (A-F or P/NP). Materials fee required. Transfer: CSU

MACH 219—INTRODUCTION TO CNC MILL PROGRAMMING 2 UNITS
18 Lecture hours, 54 Lab hours
Recommended for Success: Previous experience in the use of manual or CNC lathes and milling machines. The previous courses and/or training must have been completed satisfactorily.
The use of manual programming techniques to develop tool path codes required to produce products using CNC milling and turning equipment. Effective cutting speeds, feeds, and depth of cut for various machining operations using “canned cycles” and word address programming format will be addressed. May be completed up to 2 times. Materials fee required. Lecture/Lab. (A-F or P/NP). Transfer: CSU

MACH 220—CNC MACHINE TOOL PROGRAMMING 2 UNITS
18 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to be familiar with basic metal cutting practices, machine tool setup, and calculation of cutting tool speeds and feeds as encountered in the operation of manual lathes and milling machines; and have a working knowledge in the operation of personal computers; and have a basic understanding of formatting, structure, and codes used in the Word Address Format system of CNC programming.
The use of CAM (Computer Aided Manufacturing) programming techniques and software to develop tool path codes required to machine products using CNC milling and turning equipment. Materials Fee Required. Three completions allowed. (A-F or P/NP) Transfer: CSU

MACH 222—CNC MACHINE OPERATIONS 2 UNITS
9 Lecture hours, 81 Lab hours
Recommended for Success: Concurrent enrollment in MACH 219, 220, or 222 and previous machining experience.
The setup and operation of computer-controlled machine tools with emphasis on vertical machining centers and two axis turning centers. Primary controller operation, machine setup, tooling application, installation and adjustment and basic codes needed for editing will be addressed.
Field trips may be required. Two completions allowed. Lecture/Lab/Other. Materials fee required. Transfer: CSU

MACH 223—ADVANCED CNC MACHINE OPERATIONS 3 UNITS
27 Lecture hours, 81 Lab hours
Prerequisite: Satisfactory completion of MACH 222.
Advanced setups, controller issues, and inspection techniques that may be encountered in the use of CNC controlled machine tools. May be completed up to 2 times. Field trips may be required. Lecture/Lab (A-F or P/NP). Materials fee required. Transfer: CSU

MACH 231—MANUFACTURING PROCESSES 2 UNITS
36 Lecture hours
The exploration and study of manufacturing techniques and common industrial processes found in local industries. Field trips may be required. Two completions allowed. Lecture.

MACH 301—MACHINE SHOP 1 3 UNITS
36 Lecture hours, 54 Lab hours
Study and application of basic measuring tools (steel rules, vernier calipers and micrometers), layout tools and hand tools. Theory and practice in the use of drilling machines, bandsaws, lathes and vertical milling machines. Meets California apprenticeship standards. Two completions allowed. Field trips may be required. Lecture/Laboratory. (A-F or P/NP). Materials fee required.

MACH 302—MACHINE SHOP 2 3 UNITS
36 Lecture hours, 54 Lab hours
Prerequisites: Satisfactory completion of MACH 211D, or E or MACH 301.
Principles and fundamentals in the use of the milling machine, band saw and surface grinder with emphasis on milling operations. Principles of metallurgy, heat treating, and the application of more advanced measuring techniques will be explored. Field trips may be required. Lecture/Laboratory. (A-F or P/NP). Three completions allowed. Materials fee required.

MACH 303—MACHINE SHOP 3 3 UNITS
36 Lecture hours, 54 Lab hours
Prerequisites: Satisfactory completion of MACH 212D, or E or MACH 302.
Theory and practice in the use of the dividing head, gearing systems, carbide tooling, and non-traditional machining systems. Field trips may be required. Lecture/Laboratory. Three completions allowed. (A-F or P/NP) Materials fee required.

MACH 310—ADVANCED TOPICS IN MACHINING 1 UNIT
7.5 Lecture hours, 22.5 Lab hours
Prerequisites: Previous machining experience or Satisfactory completion of MACH 211E OR MACH 301 OR MACH 223 OR MACH 222.
Overview of advanced tooling and machining practices. Topics may include electrical discharge machining, rapid prototyping, turning, cutting tool materials and geometry, die casting and plastic injection molding. Field trips may be required. Three completions allowed. Lecture/Laboratory. Materials fee required. (Commencement Only)

MACH 311—CNC PROGRAMMING WITH MACROS 1 UNIT
9 Lecture hours, 27 Lab hours
Prerequisites: Satisfactory completion of MACH 219 and previous CNC programming experience or on-the-job training.
The application and practice of using macro techniques in the development of programs for the operation of CNC machine tools. Materials Fee Required. Two completions allowed. Field trips may be required. (P/NP Only) Lecture /Lab

MACH 312—4 AXIS MILL PROGRAMMING AND OPERATION 1 UNIT
9 Lecture hours, 27 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfyfully complete MACH 219 and have previous CNC programming experience or on-the-job training.
The application and practice of programming, installing, and operating 4th axis rotary devices on CNC vertical machining centers. Materials Fee Required. Two completions allowed. Field trips may be required. (P/NP Only) Lecture /Lab

MACH 313—MANUFACTURING PROCESSES 2 UNITS
36 Lecture hours
The exploration and study of manufacturing techniques and common industrial processes found in local industries. Field trips may be required. Two completions allowed. Lecture.

MACH 315—3D PART PROGRAMMING FOR CNC MACHINES 1 UNIT
9 Lecture hours, 27 Lab hours
Prerequisite: Satisfactory completion of MACH 220.
The application and practice of developing a program using CAD/CAM software that will direct a CNC machining center to cut a three dimensional contoured part. May be completed up to 2 times. Field trips may be required. Materials fee required. Lecture/Lab. (P/NP Only)

MACH 357—MACHINE TRADES PRINT READING 2 UNITS
36 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have a basic working knowledge of personal computers and have the ability to add, subtract, multiply, and divide numbers and have a working knowledge of the English language as applied to manufacturing processes.
Interpretation of two-dimensional mechanical prints encountered in the machining of parts. Applicable for machinist, maintenance personnel, and machine operators needing familiarization with the terminology, symbols, and practices used in the manufacturing environment. Field trips are not required. (A-F or P/NP).
MATH COURSES OFFERED

MACH 395A,B,C—ADVANCED MACH TOOL TECHNOLOGY LAB 1-3 UNITS
A=54 Lab hours, B=108 Lab hours, C=162 Lab hours
Formerly listed as MACH 395C
Prerequisite: Satisfactory completion of MACH 211 or MACH 301 or MACH 218 or MACH 219 or MACH 220 or MACH 222.
Provides access to a Machine Tool Technology laboratory setting for advanced students for the purpose of continued skills development applicable to production machining processes. Three completions allowed. (P/NP Only) Lab.

NON-TRANSFERABLE MATH COURSES
MATH 10—INTRODUCTION TO MATHEMATICS 4 UNITS
72 Lecture hours
Recommended for success: Qualification by MJC assessment process.
Module 1: A review of the four arithmetic operations as they apply to whole numbers, common fractions, and decimal fractions. Module 2: A variety of selected applications from arithmetic, pre-algebra, and geometry. Lecture. (A-F or P/NP) Transfer: (CC MATH 601)
MATH 20 — PRE-ALGEBRA  
5 UNITS  
90 Lecture hours
Prerequisite: Qualification by MJC math assessment process or satisfactory completion of MATH 10. Recommended for success: Placement into READ 82 or higher by MJC Assessment process. Designed to help students prepare for algebra and applied math courses by reviewing fundamental operations of arithmetic and common geometric formulas, and introducing the algebraic concepts of simplifying expressions, polynomial arithmetic, and solving and graphing linear equations. Arithmetic reviewed includes: integers, decimals, ratios, and percents. Lecture. (A-F or P/NP) (CC MATH 602)

MATH 47 — SKILLS FOR SUCCESS IN NON-TRANSFER LEVEL COURSES  
½ UNIT  
27 Lab hours
Formerly listed as MATH 47 - Skills for Success in Elementary Algebra
Designed to provide practice in basic mathematical skills needed for success in non-transfer level math courses. Particularly useful for those who are weak in prerequisite skills or who have struggled in other non-transfer level mathematics courses. NOTE: MATH 47 DOES NOT serve as a prerequisite to any mathematics course. Four completions allowed. (P/NP Only) Lab.

MATH 49 — SKILLS FOR SUCCESS IN TRANSFER LEVEL MATH COURSES  
½ UNIT  
27 Lab hours
Formerly listed as: MATH - 49: Skills for Success in Intermediate Algebra
Designed to provide practice in basic mathematical skills needed for success in transfer level mathematics courses. Intended for those who need prerequisite skills or who have struggled in intermediate algebra or precalculus courses. DOES NOT serve as a prerequisite to transferrable mathematics courses. Four completions allowed. (P/NP Only) Lab.

MATH 50 — BUSINESS MATHEMATICS  
3 UNITS  
54 Lecture hours
Prerequisite: Satisfactory completion of MATH 20 or qualification by the MJC assessment process.
Mathematical background for business students. Problems of buying and selling, simple and compound interest, bank discounts, trade and cash discounts, installment payments, inventory markup, amortization, present value, commissions, taxes, payrolls, depreciation, and financial statements. (A-F or P/NP) Lecture.

MATH 70 — ELEMENTARY ALGEBRA  
5 UNITS  
90 Lecture hours
Prerequisite: Satisfactory completion of MATH 20 or qualification by the MJC assessment process. Equivalent to a first-year high school algebra course. Topics include: simplifying algebraic expressions, solving linear and quadratic equations, factoring, graphing lines and parabolas, solving systems of equations, rational expressions, and radicals, with application problems incorporated into each topic. (A-F or P/NP) (CC MATH 101) Lecture.

MATH 71 — ELEMENTARY ALGEBRA 1  
3 UNITS  
54 Lecture hours
Prerequisite: Satisfactory completion of MATH 20 or qualification by the MJC assessment process. First half of MATH 70. Elementary Algebra. Topics include: simplifying algebraic expressions, solving linear equations, graphing lines, and solving systems of linear equations and inequalities; with application problems incorporated into each topic. (A-F or P/NP) Lecture. (CC MATH 100A)

MATH 72 — ELEMENTARY ALGEBRA 2  
3 UNITS  
54 Lecture hours
Prerequisite: Satisfactory completion of MATH 71. Second half of MATH 70. Elementary Algebra. Topics include: simplifying algebraic expressions, factoring, solving quadratic equations, graphing parabolas, rational expressions, and radicals; with application problems incorporated into each topic. (A-F or P/NP) Lecture. (CC MATH 100B)

MATH 80 — PLANE GEOMETRY  
3 UNITS  
54 Lecture hours
Prerequisite: Satisfactory completion of MATH 20 or equivalent or qualification by MJC assessment process.
Theorems of plane geometry, proofs and the nature of a mathematical proof; numerical solution of geometric problems; and constructions using compass and straight edge. Lecture. (A-F or P/NP) General Education: (MJC-GE-D2)

MATH 88 — ALGEBRA WITH APPLICATIONS  
2 UNITS  
54 Lecture hours
Prerequisite: Satisfactory completion of MATH 70 or (MATH 71 and MATH 72) or equivalent placement by the MJC assessment process.
Designed as an alternative to MATH 50 for students pursuing an AA or AS degree and not intending to transfer. Topics include linear equations, linear inequalities, and applications, quadratic equations and applications, exponential equations and applications, solving systems of linear equations and applications, probability. (A-F or P/NP) Lecture. Not repeatable. General Education: (MJC-GE-D2)

MATH 90 — INTERMEDIATE ALGEBRA  
5 UNITS  
90 Lecture hours
Prerequisite: Satisfactory completion of MATH 70 or MATH 71 and MATH 72 or qualification by the MJC assessment process. Equivalent to second year high school algebra. Topics include linear, quadratic, exponential and logarithmic functions and equations; complex numbers; solving systems of equations using substitution, matrices and determinants; conic sections; sequences, series and combinatorics. (A-F or P/NP) Lecture (CC MATH 104) General Education: (MJC-GE-D2)

MATH 101 — MATHEMATICAL IDEAS AND APPLICATIONS  
3 UNITS  
54 Lecture hours
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process. A general education course emphasizing the role of mathematics in civilization, the nature of mathematical thought, and applications of mathematics. (A-F or P/NP) Lecture. Transfer: (CSU, UC)(CC MATH 4B) General Education: (MJC-GE-D2)(CSU-GE-B4)(IGETC: 2A)

MATH 105 — STRUCTURE OF MATHEMATICS 1  
4 UNITS  
72 Lecture hours
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process. Structure of arithmetic for prospective elementary school teachers. The definitions, operations, and properties of sets, counting numbers, integers, rational and irrational numbers, numeration systems, number theory, logic. (A-F or P/NP) Lecture. Transfer: (CSU, UC)(CC MATH 4A) General Education: (MJC-GE-D2)(CSU-GE-B4)

MATH 106 — STRUCTURE OF MATHEMATICS 2  
4 UNITS  
72 Lecture hours
Prerequisite: Satisfactory completion of MATH 105. Elementary probability, statistics and geometry for prospective elementary school teachers. Includes Euclidean geometry, measurement, and analytic geometry. (A-F or P/NP) Lecture. Transfer: (CSU, UC)(CC MATH 4B) General Education: (MJC-GE-D2)(CSU-GE-B4)

MATH 111 — APPLIED COLLEGE ALGEBRA  
3 UNITS  
54 Lecture hours
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process. A College Algebra course that presents each topic to answer the question, “What is this used for?” Instruction begins with a real-world problem and develops the mathematical models and methods to solve it. Topics include: polynomial, rational, exponential, and logarithmic functions; theory of equations; systems of equations; matrix algebra, and analytic geometry. Designed specifically for students needing only a one-semester, non-precalculus College Algebra course for transfer to a university. Not open to students who have received credit in Math 121. Will not serve as a prerequisite to Math 122 or Math 171. STUDENTS PREPARING TO TAKE CALCULUS MUST TAKE MATH 121 AND MATH 122. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE-D2)(CSU-GE-B4)(IGETC: 2)
**PRE-CALCULUS**

MATH 121 — PRE-CALCULUS 1  
5 UNITS  
90 Lecture Hours  
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process.  
A one-semester College Algebra course or, together with Math 122, a two-semester Precalculus course sequence. Emphasis on algebra skills essential for success in calculus. Topics include: review of linear, quadratic, rational, radical, exponential, logarithmic equations and graphs; systems of equations and inequalities (linear and nonlinear); functions and graphs; synthetic division, complex roots of polynomials, the Fundamental Theorem of Algebra, applications of exponential and logarithmic equations; sequences and series; mathematical induction; combinatorics. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: D2) (CSU-GE: B4) (IGETC: 2)  

MATH 122 — PRE-CALCULUS 2  
5 UNITS  
90 Lecture hours  
Prerequisite: Satisfactory completion of MATH 121. Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 80. Together with MATH 121, a two-semester Precalculus course sequence. A comprehensive course in analytic geometry and trigonometry. Topics include: vectors, rotation of axes, conic sections, polar and parametric functions, and trigonometric functions & graphs with applications. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: D2)(CSU-GE: B4)(IGETC: 2A)

**STATISTICS AND APPLICATIONS**

MATH 130 — FINITE MATHEMATICS  
3 UNITS  
54 Lecture hours  
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process. Set theory, probability and counting techniques, Markov chains, matrices and linear systems, linear programming (Simplex Method), applications to business and behavioral and social sciences. (A-F or P/NP) Lecture Transfer: (CSU, UC)(CC MATH 12) General Education: (MJC-GE: D2)(CSU-GE: B4)(IGETC: 2A)

MATH 134 — ELEMENTARY STATISTICS  
5 UNITS  
90 Lecture Hours  
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process. Elements of descriptive and inferential statistics, including probability, discrete and continuous probability distributions, hypothesis testing, regression analysis, ANOVA, and nonparametric statistics. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: D2)(CSU-GE: B4)(IGETC: 2)

MATH 138 — CALCULUS FOR BUSINESS AND SOCIAL SCIENCES  
3 UNITS  
54 Lecture hours  
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process. Concepts of function and limit, applied calculus emphasizing techniques of differentiation and integration for business economics applications; partial derivatives. Lecture. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: D2)(CSU-GE: B4)(IGETC: 2A)

**CALCULUS**

MATH 171 — CALCULUS: FIRST COURSE  
5 UNITS  
90 Lecture Hours  
Prerequisite: Satisfactory completion of MATH 121 and MATH 122 or qualification by the MJC assessment process. Fundamental foundations of differential and integral calculus. Topics include: limits, continuity, differentiation, curve sketching, applications of differentiation, integration, the Fundamental Theorem of Calculus, and applications of integration. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: D2)(CSU-GE: B4)(IGETC: 2)

MATH 172 — CALCULUS: SECOND COURSE  
5 UNITS  
90 Lecture Hours  
Prerequisite: Satisfactory completion of MATH 171. A continuation of Math 171. Topics include: techniques of integration, applications of integration, introductory differential equations, differentiation and integration of parametric and polar equations, and infinite sequences and series. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: D2)(CSU-GE: B4)(IGETC: 2)

MATH 173 — CALCULUS: THIRD COURSE  
5 UNITS  
90 Lecture Hours  
Prerequisite: Satisfactory completion of MATH 172. A continuation of MATH 172. The extension of calculus concepts to three dimensions and functions of multiple variables. Topics include: vectors and solids in 3-space, the calculus of vectors, partial differentiation, multiple integration, applications of partial differentiation and integration, and line and surface integrals. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: D2)(CSU-GE: B4)(IGETC: 2)

MATH 174 — INTRODUCTION TO LINEAR ALGEBRA AND DIFFERENTIAL EQUATIONS  
5 UNITS  
90 Lecture hours  
Prerequisite: Satisfactory completion of MATH 173. Linear algebra topics including linear equations, vector spaces, scalar products, linear transformations, determinants and eigenvalues. Differential equation topics including solutions to first order equations, higher order linear equations, series solutions, systems of equations, and Laplace transforms. (A-F or P/NP) Lecture Transfer: (CSU, UC) General Education: (MJC-GE:D2) (CSU-GE:B4)(IGETC:2A)

**MDAST (Medical Assisting)**

Dean: Maurice McKinnon, EdD  
Division Office: Glacier Hall, Room 165  
Phone: (209) 575-63732  
Division website: www.mjc.edu/alliedhealth  
Instructors: Shirley Buzbee  

MDAST 320 — INTRODUCTION TO MEDICAL ASSISTING  
3 UNITS  
54 Lecture hours  
Formerly listed as: MDAST - 320: Intro. to Medical Assisting  
Corequisite: Concurrent enrollment in MDAST 322 and MDAST 323  
Limitations on Enrollment: Enrollment limited to students who have been accepted into the Medical Assisting Program.  
Oriention to the medical office and the role of the medical assistant. Professional relations and communications, ethics, and legal responsibilities; history of medicine and community health care facilities. Field trips may be required. (A-F Only) Lecture

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

MDAST 322 — MEDICAL ASSISTING ADMINISTRATIVE PROCEDURES  
3½ UNITS  
36 Lecture hours, 81 Lab hours  
Formerly listed as: MDAST - 322: Medical Assisting Administrative  
Corequisite: Concurrent enrollment in MDAST 320 and MDAST 323  
Limitations on Enrollment: Enrollment limited to students who have been accepted into the Medical Assisting Program.  
Medical Assisting Administrative procedures including financial record keeping, insurance claims, banking functions, payroll and medical records. Students receive training in completing the above procedures manually and by computer. Field trips may be required. (A-F Only) Lecture/ Lab

MDAST 323 — MEDICAL ASSISTING CLINICAL PROCEDURES  
3 UNITS  
36 Lecture hours, 54 Lab hours  
Formerly listed as: MDAST - 323: Medical Assisting Clinical  
Corequisite: Concurrent enrollment in MDAST 322 and MDAST 323  
Limitations on Enrollment: Enrollment limited to students who have been accepted into the Medical Assisting Program.  
Clinical medical assisting skills, which pertain to preparing the patient for examination and assisting patient and physician during patient examination and treatment. The assistant must anticipate the physician’s needs as to the type of examination, the specific equipment needed, and the extent of assistance required by the patient. This requires judgment based on a reasonable understanding of physical examinations, the methods and equipment used, and the related role of the medical assistant. Materials Fee Required. (A-F Only) Lecture/ Lab

**CURRICULUM CHANGES "IMPACT" PROOF**

INACTIVATED - NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
MDAST 324—INTRODUCTION TO DISEASE AND PHARMACOLOGY 4 UNITS
63 Lecture hours, 27 Lab hours
Formerly listed as: MDAST - 324: Intro to Diseases/Pharmacology
Prerequisite: Satisfactory completion of MDAST 320 and MDAST 322 and MDAST 323.
Corequisite: Concurrent enrollment in MDAST 325 and MDAST 326. Medical Terminology related to the human body in health and disease.
Pathogenesis and discussion of representative diseases; signs and symptoms of many major diseases and basic drugs used in treatment. (A-F Only) Lecture /Lab

MDAST 325—MEDICAL ASSISTING LABORATORY PROCEDURES 3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as: MDAST - 325: Lab Procedures
Prerequisite: Satisfactory completion of MDAST 320 and MDAST 322 and MDAST 323.
Corequisite: Concurrent enrollment in MDAST 324 and MDAST 326.
Introduction to laboratory procedures necessary to aid the physician. Includes patient preparation for diagnostic studies, purposes, techniques, and recording of procedures commonly performed. Field trips may be required. (A-F Only) Lecture /Lab. Transfer: (CC OFTEC 50)

MDAST 326—MEDICAL ASSISTING PRACTICUM 7 UNITS
36 Lecture hours, 270 Lab hours
Formerly listed as: MDAST - 326: Externship
Prerequisite: Satisfactory completion of MDAST 320 and MDAST 322 and MDAST 323.
Corequisite: Concurrent enrollment in MDAST 324 and MDAST 325.
Practicum portion of the program consists of two 8-week rotations in which students apply knowledge in performing administrative and clinical procedures. Students also receive training in taking the national certification exam and seeking employment. (A-F Only) Lecture /Lab.

MDAST 352—MEDICAL CODING/CPT 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MDAST 321.
Entry level course that covers the use of Current Procedural Terminology (CPT), a coding system developed by the American Medical Association (AMA) to convert widely accepted, uniform descriptions of medical, surgical, and diagnostic services rendered by health-care providers into five-digit numeric codes. This course along with Medical Assisting 353 prepares students to take the Certified Coding Specialist Examination offered by the American Health Information Management Association (AHIMA). Unlimited completions. (A-F or P/NP) Lecture.

MDAST 353—MEDICAL CODING/ICD 3 UNITS
54 Lecture hours
Recommended for Success: Satisfactory completion of MDAST 323 or equivalent.
Formerly listed as: MDAST 352: Medical Coding Specialist.
Entry level course that covers the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM), which is designed for the classification of patient morbidity (sickness) and mortality. Health Information for statistical purposes and for the indexing of hospital records by disease and operation for data storage and retrieval. This course along with Medical Assisting 352 prepares students to take the Certified Coding Specialist Examination offered by the American Health Information Management Association (AHIMA). Two completions allowed. Lecture. (A-F or P/NP) Two completions allowed.

MDAST 354—INTERMEDIATE MEDICAL CODING/ICD-10CM 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MDAST 311, MDAST 312, and MDAST 313.
Continued development in various settings where ICD-9-CM is used, such as specialties, physician offices, medical group practices, medical clinics, billing companies and hospitals. Fundamental skills include ICD-9-CM coding, guidelines/conventions, use of the ICD-9-CM manual, and numeric coding exercise (including excerpts from actual patient records). (A-F or P/NP). Field trips may be required. Lecture.

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

METEO 161 INTRODUCTION TO METEOROLOGY 4 UNITS
54 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete EASCI 161 and satisfactorily complete MATH 70.
Introduction to atmospheric structure, weather monitoring techniques, solar radiation, thermodynamics, air pressure, humidity, cloud formation, wind patterns, planetary circulation patterns, storms and severe weather (including thunderstorms, tornadoes, and hurricanes), and the causes and consequences of climate and climate change. Lab activities emphasize gathering and analysis of meteorological data (both archived and real-time) to understand and predict weather events. Field trips may be required. (A-F or P/NP) Lecture /Lab. Transfer: (CSU, UC) General Education: (MJC-GE: A) (CSU-GE: B1, B3) (IGETC: 5A, 5C)

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

MICRO 101—MICROBIOLOGY 4 UNITS
54 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of BIO 116 or BIO 101 or BIO 111 and CHEM 143.
Includes the study of microorganisms, microbial metabolism, genetics, and varieties; immunity, infections, and antimicrobials. Intended mainly for student entering the health professions. Field trips may be required. (A-F or P/NP) Lecture /Lab. Transfer: (CSU, UC) General Education: (MJC-GE: A) (CSU-GE: B2, B3) (IGETC: 5B, 5C)
MUSIC
Dean: Michael Sundquist
Division Office: Performing and Media Arts Center, Room 205
Phone: (209) 575-6081
Division website: www.mjc.edu/arts
Instructors: Alejandro Sabre, Anne Martin, Cherrie Llewellyn, David Chapman, Erik Maki, Stephen Stroud

MUSA (Music: Applied)
See “Repeat Limitations on Music Courses.” Students must meet performance and repertoire standards before proceeding to successive levels in the following classes:

MUSA 121—ELEMENTARY PIANO
Formerly listed as: MUSC - 120: Elementary Piano
54 Lab Hours
Essentials of music notation; fundamentals of rhythm, tone production and the coordinated use of both hands; introduction of scales and chords; methods of practice and memorization. Completion of MUSA 121, Elementary Piano is recommended for all general elementary teaching candidates. Electronic keyboard lab and acoustic upright piano practice rooms available. Four completions allowed. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC Activities)

MUSA 122—PIANO ENRICHMENT
Formerly listed as: MUSC - 121: Piano Enrichment
54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 121. Continued development of piano technique, understanding of rhythmic skills and basic music theory. Emphasis upon sight reading and ensemble playing. Electronic piano lab and practice rooms available. Four completions allowed. Four completions allowed. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC Activities)

MUSA 123—INTERMEDIATE PIANO
54 Lab Hours
Formerly listed as MUSA 122
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 122.
Further study of piano technique, tone production, efficient use of physical self, detailed study diatonic scales and harmonic progressions; attention given to improving sight reading skills, learning process, musical interpretation of the score, memorization techniques and performance skills. Introduction to intermediate level repertoire from various stylistic periods; participation in live performance demonstrations as well as live student recital at the end of term. Four completions allowed. Field trips may be required. (A-F or P/NP) Lab. MJC Activities Transfer: (CSU, UC) (CC MUSIC 41A & 41B)

MUSA 124—ADVANCED PIANO
108 Lab hours
Formerly listed as MUSA 123
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 123.
Study of advanced piano playing techniques; review of scales and arpeggios in both major and minor modes; study of advanced repertoire from various stylistic periods. Emphasis on preparation of solo repertoire for live performances. Four completions allowed. Field trips may be required. (A-F Only) /Lab. MJC Activities Transfer: (CSU, UC)

MUSA 131—ORGAN 1
54 Lab hours
Formerly listed as MUSA 124
Recommended for Success: Satisfactory completion of MUSA 121 or equivalent.
History, construction and literature for the organ, use of foot pedals, coordination of hands and feet, and comparison of popular and classical styles; development of repertoire. Four completions allowed. Lecture/Laboratory. Not offered every semester. MJC Activities Transfer: (CSU, UC)

MUSA 132—ORGAN 2
54 Lab hours
Formerly listed as MUSA 125
Recommended for Success: Satisfactory completion of MUSA 131 or equivalent
Prerequisite: Satisfactory completion of MUSA 131 or equivalent
Prerequisite Satisfactory completion of MUSA 131 or equivalent
Completion on enrollment: Ability to coordinate keyboard manuals and pedals together using basic rhythms, melodic, and chordal structures.
Development of skills introduced in MUSA 131, analysis of practice methods to overcome technical problems. Discussion of service playing and music suitable for various forms of worship. Preparation for recitals. Four completions allowed. Lecture/Laboratory. (A-F or P/NP) Transfer: (CSU, UC)

MUSA 133—ORGAN 3
54 Lab hours
Formerly listed as MUSA 126
Recommended for Success: Satisfactory completion of MUSA 132 or equivalent
Prerequisite: Satisfactory completion of MUSA 132 or equivalent
Prerequisite Satisfactory completion of MUSA 132 or equivalent
Completion on enrollment: Ability to coordinate keyboard manuals and pedals together using basic rhythms, melodic, and chordal structures.
Study and analysis of organ literature from baroque, classical, romantic and contemporary periods; function of the organ in solo and accompanimental forms; opportunity for practical experience in both areas; emphasis on cumulative repertoire. Four completions allowed. Lecture/Laboratory. (A-F or P/NP) Transfer: (CSU, UC)

MUSA 135—ELEMENTARY HARPSCICHORD
9 Lecture hours, 27 Lab hours
Formerly listed as MUSC - 181
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 127.
Introduction to the basic skills of harpsichord performance. Literature from the Renaissance, Baroque and Early Classical periods. Performance techniques will include figured bass, violin and instrumental accompanying. Four completions allowed. (A-F or P/NP) Lecture/Lab. MJC Activities Transfer: (CSU, UC)

CURRICULUM CHANGES “IMPACT” PROOF
INACTIVATED: NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
MUSA 141 — ELEMENTARY GUITAR  
Formerly listed as: MUSC - 163: Elementary Guitar  
54 Lab Hours  
Examination of the basic elements of classical guitar technique and repertoire. Technical works will emphasize posture, correct right- and left-hand technique, as well as treble clef note-reading in first position. The course will introduce sight-reading on easy melodies, as well as chord charts. Chord coverage will include: closed finger chords, opened finger chords, and bar chords. The student is responsible for providing a nylon-stringed classical guitar, a guitar tuner, and a foot-stool. All students will perform in a semi-formal performance at the end of the semester. *Four completions allowed.* Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

MUSA 142 — GUITAR PERFORMANCE  
Formerly listed as: MUSC - 142: Guitar Enrichment, MUSC - 164: Guitar Enrichment  
18.00 Lecture Hours,  
Prerequisite: Satisfactory completion of MUSA 141.  
Continuation of MUSA 141. Focus on group performances and an introduction to solo performance. Students will learn to follow notation up to the fifth position in solo and smaller ensembles. Intermediate techniques including tremolo, flamenco strumming, and harmonic playing. Technical exercises and techniques to develop finger independence. A classical, nylon-string guitar is strongly recommended for use in the course. *Four completions allowed.* Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

MUSA 143 — GUITAR ENRICHMENT  
Formerly listed as: MUSC - 143: Guitar Advancement, MUSC - 174: Guitar Advancement  
54 Lab Hours,  
Prerequisite: Satisfactory completion of MUSA 141.  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 142.  
Improvement of guitarist's accompaniment technique, analytical skills, and performance competence. Music education majors are strongly encouraged to take this course. Special attention will be given to performance in solo and group settings. Students will be required to participate in a formal recital at the end of the term. A nylon-string classical or flamenco guitar is recommended for use in the course. *Four completions allowed.* Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

MUSA 144 — INTERMEDIATE GUITAR  
54 Lab hours  
Formerly listed as: MUSC 165  
Prerequisite: Satisfactory completion of MUSA 141.  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSA 142 or satisfactorily complete MUSA 143.  
Further development of guitar performance skills and techniques. Particular attention will be given to technical exercises and the performance practices surrounding the classical and flamenco intermediate repertoire. Students will need a Nylon-string classical guitar. Two public performances (mid-term and final) will be connected to this course. *Four completions allowed.* Field trips may be required. (A-F or P/NP) Lab. MJC Activities. Transfer: (CSU, UC)

MUSA 145 — APPLIED CLASSICAL GUITAR  
18 Lecture hours  
Formerly listed as: MUSC 166  
Corequisite: Concurrent enrollment required in or satisfactory completion of MUSA 144.  
Designed for performance majors intending to transfer to four-year institutions. The curricula will cover materials necessary to provide the appropriate skill level for upper division coursework at most universities. Students must perform a fifty-minute recital as a completion requirement for the course. A fifteen-minute jury may substitute for the recital requirement. *Four completions allowed.* Field trips may be required. (A-F or P/NP) Lecture. MJC Activities Transfer: (CSU, UC) (CC MUSC 50)

MUSA 151 — ELEMENTARY VOICE 1  
54 Lab hours  
Formerly listed as: MUSC 131  
Development of singing voice through consideration and application of the basic elements of tone production, i.e., breathing, resonance, diction posture, principles applied through group and individual vocal exercises and singing. This is the first of two preparatory courses for students who intend to take voice classes at the major level. *Three completions allowed.* Field trips may be required. (A-F or P/NP) Lecture. MJC Activities Transfer: (CSU, UC) (CC MUSC 36)

MUSA 152 — ELEMENTARY VOICE 2  
54 Lab hours  
Formerly listed as MUSC 132: Voice Enrichment  
Recommended for Success: Before enrolling in this course, students are strongly advised to have previous vocal experience.  
Further development of the singing voice through consideration and application of the basic elements of tone production, i.e., breathing, resonance, diction, posture; principles applied through group and individual vocal exercises and singing. Field trips may be required. *Four completions allowed.* Lecture/Laboratory MJC Activities. Transfer: (CSU, UC) (CC MUSC 37)

MUSA 153 — APPLIED VOCAL REPERTOIRE 1  
54 Lab hours  
Formerly listed as MUSC 133 - Intermediate Voice  
Corequisite: Concurrent enrollment required in MUSA 155  
Recommended for Success: Before enrolling in this course, students are strongly advised to have a choral background or previous voice lessons.  
Limitation on enrollment: Enrollment limited to students possessing the ability to read music and sing within the tonal center.  
Study and performance of vocal solo literature with emphasis on building repertoire, development of style, and preparation for recitals. Recital and public performance participation required. This class is intended for voice majors. Students may be required to transfer to a four year University as a music major. *Four completions allowed.* (A-F or P/NP) Lab. MJC Activities. Transfer: (CSU, UC) (CC MUSC 39)

MUSA 154 — APPLIED VOCAL REPERTOIRE 2  
18 Lecture hours  
Formerly listed as MUSC 134  
Prerequisite: Satisfactory completion of MUSA 153.  
Corequisite: Concurrent enrollment required in MUSA 155.  
Limitations on enrollment: Enrollment limited to students with an intermediate level ability to sight read music and sing within the tonal center.  
Continuation of MUSA 153 with greater emphasis on building repertoire, development of style, and preparation for transfer auditions, auditions in general and recitals. Recital and public performance participation required. This class is intended for voice majors. This is a necessary class to transfer as a music major to a four year university. *9. Field trips may be required. (A-F or P/NP)* Lecture. MJC Activities Transfer: (CSU, UC) (CC MUSC 56)

MUSA 155 — VOCAL MASTER CLASS  
54 Lab hours  
Formerly listed as MUSC 139  
Corequisite: Concurrent enrollment required in MUSA 153 or MUSA 154.  
Development of vocal performance through the consideration and application of good vocal technique, performance practice and dramatic character development; principles applied through recital attendance and through solo, duet or ensemble performances in class and public recitals. *Four completions allowed.* Field trips may be required. (A-F or P/NP) Lab. MJC Activities. Transfer: (CSU, UC)

MUSA 161 — ELEMENTARY STRINGS  
54 Lab hours  
Formerly listed as: MUSC - 127: Elementary Strings  
Introduction to playing orchestral stringed instruments (violin, viola, cello, or bass). Designed for students with no previous instrumental music experience, students who wish to review fundamentals of string playing, or experienced instrumentalists who wish to learn a new instrument. Students must own or have access to a bowed string instrument. Public performance required. *Four completions allowed.* Field trips may be required. (A-F or P/NP) Lab. Transfer: (CSU, UC) General Education: MJC Activities

MUSA 163 — APPLIED MUSIC (VIOLIN AND VIOLA)  
18 Lecture hours  
Formerly listed as: MUSC - 128: Applied Music (Violin and Viola)  
Recommended for Success: Before enrolling in this course, students are strongly advised to be able to play a violin or viola at an intermediate level and demonstrate the ability to read music.  
Study and performance of violin or viola technique and literature. Public performance participation required. *Four completions allowed.* Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: MJC Activities.

**CURRICULUM CHANGES "IMPACT" PROOF**

*New/Modified Pending 01/22 or Needs Further IO Review*
MUSA 164—APPLIED MUSIC (CELLO AND BASS) 1 UNIT
Formerly listed as: MUSIC - 129: Applied Music (Cello and Bass)
Lecture. (CSU, UC) General Education: MJC Activities.
Recommended for Success: Before enrolling in this course, students are advised to play a cello or bass at an intermediate or advanced level and demonstrate the ability to read music. Study and performance of cello or bass technique and literature. Recital and public performance participation required. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: MJC Activities.

MUSA 173—APPLIED MUSIC (BRASS AND PERCUSSION) 1 UNIT
Formerly listed as MUSA 173 and MUSIC 142
Lecture/Lab. MJC Activities. (A-F or P/NP)
Study and performance of brass and percussion solo literature, etudes, scales, and technical studies. Intended for music majors and/or advanced players. Recital and public performance participation required. Student must own or have access to an instrument appropriate for this course. Field trips may be required. (A-F or P/NP) Lecture. MJC Activities Transfer: (CSU, UC)

MUSA 183—APPLIED MUSIC (WOODWINDS) 1 UNIT
Formerly listed as MUSA 144
Lecture/Lab. MJC Activities. (A-F or P/NP)
Study and performance of woodwind solo literature, etudes, scales, and technical studies. Intended for music majors and/or advanced players. Recital and public performance participation required. Student must own or have access to an instrument appropriate for this course. Field trips may be required. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture. MJC Activities Transfer: (CSU, UC) (CC MUSIC 52)

MUSC (Music: Commercial) 2 UNITS
See "Repeat Limitations on Music Courses." Students must meet performance and repertoire standards before proceeding to successive levels in the following classes.

MUSC 111—RECORDING ARTS 1 2 UNITS
Formerly listed as MUSIC 172
18 Lecture hours, 54 Lab hours
Also offered as RATV 172
Recommended for Success: Before enrolling in this course, students are advised to satisfactorily complete MUSC 121 and MUSC 122
Introduction to the terminology and practices of the recording arts: Properties of sound, microphone placement, multi-track recording, mixing, and mastering. Lab time and materials fees will be required. Two completions allowed. Field trips may be required. (A-F or P/NP) MJC Activities Transfer: CSU

MUSC 112—RECORDING ARTS 2 2 UNITS
Formerly listed as MUSIC 178
18 Lecture hours, 54 Lab hours
Also offered as RATV 178
Recommended for Success: Before enrolling in this course, students are advised to satisfactorily complete MUSC 111
Advanced topics in the recording studio relating to the digital recording process. In-depth study of microphone choice and placement, microphone pre-amplifiers and analog processors, direct inputting, non-destructive digital editing, software plug-ins, automation techniques, mixing and mastering in the recording process. Laboratory time required. Materials fee required. Four completions allowed. MJC Activities Transfer: CSU

MUSC 121—INTRODUCTION TO THE SYNTHESIZER AND MIDI 2 UNITS
Formerly listed as MUSIC 170
18 Lecture hours, 54 Lab hours
Also offered as RATV 171
Introduction to synthesizer and electronic keyboard sound design and operational procedures. MIDI (Musical Instrument Digital Interface) music studio techniques will be examined and utilized in an electronic music studio environment. Music acoustics, electronic music composition, synthesizer live performance, digital sampling, audio recording and music software programs will be explored. Four completions allowed. (A-F or P/NP) Lecture/Lab. MJC Activities Transfer: CSU

MUSC 122—ELECTRONIC MUSIC 2 2 UNITS
27 Lecture hours, 27 Lab hours
Recommended for Success: Before enrolling in this course, students are advised to satisfactorily complete MUSC 121 or have previous synthesizer, tape recording and MIDI music studio experience. Applied topics in electronic music composition, MIDI (Musical Instrument Digital Interface) music studio procedures, sampling, tape and digital recording. Performance in an electronic music concert is expected. Four completions allowed. (A-F or P/NP) Lecture/Lab. MJC Activities Transfer: CSU

MUSC 126—MUSIC PRODUCTION FOR MULTIMEDIA 2 UNITS
18 Lecture hours, 54 Lab hours
Designed for the student with an interest in music composing, music production, sound design and sound effects. The course will explore production of music for recording artists, music videos, demos, public service announcements, radio programs, graphics animations, commercials, jingles, and TV/film scoring through the use of MIDI sequencing, digital multitrack recording and SMPTE synchronizing. Four completions allowed. Lecture/Lab. MJC Activities. (A-F or P/NP) Transfer: CSU

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED  NEW/MODIFIED  PENDING 01/22 or NEEDS FURTHER IO REVIEW

MUSE 253
MUSE (Music: Ensemble)

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

MUSE 145—GUITAR ORCHESTRA  1 UNIT
54 Lab hours
Formerly listed as MUSC 173
Recommended for Success: Before enrolling in this course, students are strongly advised to have previous experience in playing a string instrument. Emphasis on guitar ensemble repertoire. Required participation and performance in large and small ensembles. Students are assigned to groups that will perform in mandatory graded concert performances throughout the course. Field trips may be required. (A-F or P/NP) Lab. MJC Activities. Transfer: (CSU, UC)

MUSE 151—MASTERWORKS CHORUS  1 UNIT
54 Lab hours
Formerly listed as MUSC 154
Previous experience in a large choral ensemble.
A choral ensemble for all levels of singers. Study and performance of either one large scale work or program of shorter choral works, drawn from the standard repertoire of classical, folk, and popular music. Public performances required. Field trips are required. (A-F or P/NP) Lab. Transfer: (CSU, UC) General Education: MJC Activities.

MUSE 155—CONCERT CHOIR  1 UNIT
54 Lab hours
Formerly listed as MUSC - 152: Concert Choir
Limitations on Enrollment: Enrollment limited to students who pass an audition.
A large choral ensemble for the intermediate and advanced level singer. Study and performance of a combination of large-scale and shorter works for orchestra. Public performances are required. Field trips are required. (A-F or P/NP) Lab. Transfer: (CSU, UC) General Education: MJC Activities.

MUSE 156—CHAMBER CHOIR  1 UNIT
54 Lab hours
Formerly listed as MUSC - 153: Chamber Choir
Limitations on Enrollment: Enrollment limited to students who pass an audition.
A small choral ensemble for advanced singers. Study and performance of historically and culturally varied music. Required participation and performance in the course. Field trips are required. (A-F or P/NP) Lab. Transfer: (CSU, UC) General Education: MJC Activities.

MUSE 161—COMMUNITY ORCHESTRA  1 UNIT
54 Lab hours
Formerly listed as MUSC 162
Recommended for Success: Before enrolling in this course, students are strongly advised to have previous experience in playing a musical instrument. Study and performance of a combination of large-scale and shorter works for orchestra. Public performances required. Field trips are required. (A-F or P/NP) Lab. Transfer: (CSU, UC) General Education: MJC Activities.

MUSE 165—STRING ORCHESTRA  1 UNIT
54 Lab hours
Formerly listed as MUSC 161
Recommended for Success: Before enrolling in this course, students are strongly advised to have previous experience in playing a musical instrument. Emphasis on string ensemble repertoire. Required participation and performance in the course. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)

MUSE 166—CHAMBER MUSIC ENSEMBLES (STRINGS)  1 UNIT
18 Lecture hours
Formerly listed as MUSC 151
Recommended for Success: Before enrolling in this course, students are strongly advised to have previous experience in playing a string instrument and to have the ability to read music. Field trips may be required. (A-F or P/NP) Lecture. MJC Activities. Transfer: (CSU, UC)

MUSE 171—CONCERT BAND  1 UNIT
54 Lab hours
Formerly listed as MUSC 156
Recommended for Success: Before enrolling in this course, students are strongly advised to have previous experience playing in a band and to have the ability to read music. Emphasis on performance of original wind literature and transcriptions for concert band. Field trips may be required. Four completions allowed. (A-F or P/NP) Lab. Transfer: (CSU, UC)

MUSE 175—SYMPHONIC BAND  1 UNIT
54 Lab hours
Formerly listed as MUSC 154
Recommended for Success: Before enrolling in this course, students are strongly advised to have previous experience in a large choral ensemble. Emphasis on wind literature and transcriptions for band. Required participation and performance in the course. Field trips are required. Field trips are required. (A-F or P/NP) Lab. Transfer: (CSU, UC) General Education: MJC Activities.

MUSE 176—CHAMBER ENSEMBLES (BAND INSTRUMENTS)  1 UNIT
18 Lecture hours
Formerly listed as MUSC - 145: Chamber Ensembles (Band Instruments)
Recommended for Success: Before enrolling in this course, students are strongly advised to have at least 2 years of experience on their instrument, be able to read music notation and/or satisfactorily complete MUSC 175 and/or satisfactorily complete MUSC 171. Emphasis on performance of original wind literature and transcriptions for concert band. Field trips are required. Field trips are required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: MJC Activities.

MUSE 181—JAZZ BAND  1 UNIT
54 Lab hours
Formerly listed as MUSC 149
Recommended for Success: Before enrolling in this course, students are strongly advised to have previous experience playing jazz music (one player per part). Emphasis on performance of original wind literature and transcriptions for jazz band. Required participation and performance in the course. Field trips are required. Four completions allowed. Field trips may be required. (A-F or P/NP) Lab. Transfer: (CSU, UC) General Education: MJC Activities.

MUSE: NON-CREDIT COURSES

MUSE 851—MASTERWORKS CHORUS  54 Lab hours
Formerly listed as OLADV 851
Recommended for Success: Before enrolling in this course, students are strongly advised to have previous experience in studying, performing, and analyzing classical literature. Field trips may be required. A graded course. Lecture/Laboratory.

MUSE 861—COMMUNITY ORCHESTRA  54 Lab hours
Formerly listed as OLADV 861
Recommended for Success: Before enrolling in this course, students are strongly advised to have previous experience in studying, performing, and analyzing classical literature. Field trips may be required. A graded course. Lecture/Laboratory.
MUSG (Music: General)

MUSG 101 — MUSIC APPRECIATION
3 UNITS
Formerly listed as: MUSC - 110: Music Appreciation
54 Lecture Hours.
A survey course emphasizing the development of the listener’s perception of the basic elements of music. Illustrations encompass various types of folk and traditional music, traditional classical music from a variety of historical periods, and musical material of a contemporary nature. Field trips may be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUSG 102 — INTRODUCTION TO WORLD MUSIC
3 UNITS
Formerly listed as: MUSC - 169: Introduction to World Music
54 Lecture Hours.
Exploration of traditional/contemporary folk music of Africa, Asia, Latin America Europe and the U.S. from the perspective of music as culture. Investigations of the impact/influence of migratory patterns, social-political processes, and how ethnicities (groups that exist by language and customs) are reflected in music. Field trips may be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUSG 111 — INTRODUCTION TO AMERICAN POPULAR MUSIC
3 UNITS
54 Lecture hours
Formerly listed as MUSC 118
Survey course emphasizing the listeners perception and understanding of the elements of American Popular Music. Illustrations will cover Folk, Jazz, Musical Theatre and Rock styles of popular music. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUSG 112 — THE MUSIC OF THE BEATLES
3 UNITS
54 Lecture hours
Formerly listed as MUSC 190
A survey of the musical styles by the Beatles dating from 1958-1970. Emphasis will be placed on identifying the various musical periods, the stylistic practices in their compositions, their performances and interviews. (A-F Only) Lecture. Transfer: (CSU, UC)

MUSG 121 — HISTORY OF WESTERN MUSIC 1
3 UNIT
54 Lecture hours
Formerly listed as MUSC 112
Survey of musical styles by master composers dating from the ancient period through the end of the baroque period (1750). Various historical periods, the stylistic practices in composition and performance, musical compositions of the most prominent composers from each historical period. Field trips may be required. Lecture/Laboratory. (A-F or P/NP) Transfer: (CSU, UC) (CC MUSIC 10) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUSG 122 — HISTORY OF WESTERN MUSIC 2
3 UNITS
54 Lecture hours
Formerly listed as MUSC 113
A general survey of the musical styles by master composers dating from the classical period (1750) to the present. Emphasis will be placed on identifying the various historical periods, the stylistic practices in composition and performance, and utilizing the musical compositions of the most prominent composers from each historical period. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) (CC MUSIC 11) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUSG 123 — INTRODUCTION TO AMERICAN COMPOSITION
3 UNITS
54 Lecture hours
Formerly listed as MUSC 154
Survey of musical styles by master composers from the American period. Various historical periods, the stylistic practices in composition and performance, and utilizing the musical compositions of the most prominent composers from each historical period. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) (CC MUSIC 12) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUSI (Music: Independent Activities)

MUSI 349 A-D — WORK EXPERIENCE IN THE ARTS — 1 UNIT
SUPERVISED PRACTICE
Formerly listed as MUSC 349A
Described for those majors who wish to combine classroom experience with an exploration of skills or knowledge acquired at a site of employment on a paid or volunteer basis. Work must directly relate to the student’s area of study. May be repeated for a total of 16 units. Also offered during May, June, and July. Lecture/Other. (A-F Only)

MUSP (Music: Stage Production)

MUSP 151 — MUSICAL THEATRE WORKSHOP
2 UNITS
108 Lab hours
Formerly listed as MUSC 151
Recommended for Success: Before enrolling in this course, students are strongly advised to have previous vocal experience. Intended for those interested in singing and acting. Study and performance of musical theatre. Public performance is required. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture/Lab. MJC Activities. Transfer: (CSU, UC)

MUSP 153 — ADVANCED MUSICAL THEATRE WORKSHOP
2 UNITS
108 Lab hours
Formerly listed as MUSC 153
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUSP 151. Intended for those interested in singing and acting. Study and performance of musical theatre. Public performance is required. Four completions allowed. Field trips may be required. (A-F or P/NP) Lab. MJC Activities. Transfer: (CSU, UC)

MUST (Music: Theory)

MUST 101 — MUSIC FUNDAMENTALS 1
3 UNITS
54 Lecture hours
Formerly listed as: MUSC - 100: Music Fundamentals 1
54 Lecture Hours,
Basic music theory concepts such as musical notation, rhythm, tonality, scales, intervals, key signatures, and chords. Basic aural skills concepts such as rhythm drills and sight-singing using Solfege. Designed to meet the needs of the music majors with little to no music theory background, as well as non-music majors and prospective elementary school teachers. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUST 103 — MUSIC, BIRTH TO K: THEORY AND PRACTICE
3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are advised to possess the following basic music skills: ability to read music (note names, melody and rhythm) and define and apply basic music vocabulary, or have successfully completed one or more of the following courses: MUST 101, MUSIC 100, MUSIC 117, MUSIC 121, MUSIC 122, MUSIC 131, MUSIC 132, MUSIC 133, MUSIC 134, MUSIC 135.
Introduction to the methods of teaching music to children (birth to Kindergarten). Theories on the developing mind and the benefits of musical understanding to musianship as well as overall child development. Kodaly, Orff, Dalcroze and other methods will be covered. Relationship of child development theory and developmentally appropriate practice. Study of classroom implementation process. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU)

Curriculum Changes "Impact" Proof
INACTIVATED: NEW/MODIFIED: PENDING 01/22 or NEEDS FURTHER REVIEW
MUST 106—MUSIC, BIRTH TO K: APPLICATION 3 UNITS
54 Lecture hours, 36 Lab hours
Formerly listed as MUSIC 177
Formerly offered as CLDDV 294
Prerequisite: Satisfactory completion of EDBB 293/MUST 103/MUSIC 176.
Application of the methods of teaching music to children (birth to Kindergarten) at an infant-toddler or preschool center with instructor supervision. Students will continue to draw connections between basic music skills, methods of teaching theories, child development, and developmentally appropriate practice. Second in a sequence of two courses - Field trips may be required. (A-F or P/NP) Lecture. Transfer: CSU

MUST 111—RHYTHMIC SKILLS 1 UNIT
36 Lecture hours, 36 Lab hours
Introduction to terminology and symbols used in the rhythmic notation of music, and to facilitate the development of the ability to read, write and accurately perform rhythmic figures with proper inflection and articulation. Four completions allowed. Lecture/Laboratory. Not offered every semester. Transfer: CSU

MUST 120—MUSIC THEORY REVIEW 1 UNIT
36 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 101 or MUST 102, or have had at least two years of high school or community college ensemble performance experience, and have declared music as their major. Designed to prepare music majors for the required music theory sequence, review of fundamentals of music theory, rhythm and pitch notation, terminology, diatonic intervals, triads, inversions, figured bass, Roman numeral analysis. Four completions allowed. (A-F or P/NP) Lecture. Transfer: CSU

MUST 121—MUSIC THEORY 1 3 UNITS
54 Lecture Hours, Prerequisite: Satisfactory completion of MUST 101.
Corequisite: Concurrent enrollment in MUST 131 and MUST 130.
Brief review of primary Music Fundamentals topics: Tonality, Introduction to common harmonic practice through exercises in part writing and figured bass, simple guided composition, and analysis. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MUC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUST 122—MUSIC THEORY 2 3 UNITS
54 Lecture Hours, Prerequisite: Satisfactory completion of MUST 121.
Corequisite: Concurrent enrollment in MUST 122 and MUST 130.
Continuing development of technique in common harmonic practice through Roman numeral analysis, part writing, figured bass, and guided composition exercises. Introduction to tonalization and secondary dominants; introduction to phrase and period structure. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MUC-GE: C) (CSU-GE: C1) (IGETC: 3A)

MUST 123—MUSIC THEORY 3 3 UNITS
54 Lecture Hours, Prerequisite: Satisfactory completion of MUST 122.
Corequisite: Concurrent enrollment in MUST 130.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 133 concurrent enrollment.
Continuation of the study of structural elements of music such as melody, rhythm, harmony and form with emphasis on the organization of these elements, study of chromatic alteration, expansion of harmonic resources through chromaticism; study of binary and sonata form. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC)

MUST 124—MUSIC THEORY 4 3 UNITS
54 Lecture Hours, Prerequisite: Satisfactory completion of MUST 123.
Corequisite: Concurrent enrollment in MUST 130.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 134 concurrent enrollment.
Continued development of analytical techniques; study of fugue and basic tonal counterpoint; introduction to impressionism and to twentieth century structural techniques; study of ternary structures and rondo form. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC)

MUST 130—PRACTICA MUSICA 1 UNITS
Formerly listed as: MUSIC - 197: Practica Musica
54 Lab Hours, Corequisite: Concurrent enrollment in MUST 121 or MUST 122 or MUST 123 or MUST 124.
Development of aural and rhythmic skills by means of computer assisted participation. Exposure to standard western art music repertoire by means of guided listening. Four completions allowed. Field trips are not required. (A-F Only) Transfer: (CSU) Graduation: (MJC: Activities)

MUST 131—AURAL SKILLS 1 1 UNIT
54 Lab Hours, Corequisite: Concurrent enrollment in or satisfactory completion of MUST 121.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 101 and concurrently enroll in a lab experience such as MUST 130, Practica Musica.
Supplements the study of written music theory (MUST 121) by practical application of singing ear-training, and performance techniques; integration of the two basic musical elements pitch and rhythm through weekly singing of diatonic melodies from textbook using movable Do Solfege; analysis, rhythmic and melodic dictation; use of computer assisted instruction in Practica Musica, lab portion of the class (MUST 130). Field trips might be required. (A-F Only) Transfer: (CSU, UC)

MUST 132—AURAL SKILLS 2 1 UNIT
54 Lab Hours, Prerequisite: Satisfactory completion of MUST 131.
Corequisite: Concurrent enrollment in MUST 122.
Continuation of MUST 104 further developing skills in sight-singing, melodic and rhythmic dictation and in aural analysis of harmonic materials. Use of computer assisted instruction. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC)

MUST 133—AURAL SKILLS 3 1 UNIT
54 Lab Hours, Prerequisite: Satisfactory completion of MUST 122.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 123.
Sequential continuation of MUST 132, Aural Skills 2, supplements the study of written music theory (MUST 123) by practical application of singing, ear-training, and performance techniques; further development of musicianship skills through weekly singing of diatonic as well as chromatic melodies from textbook using movable Do Solfege and conducting; basic keyboard skills to harmonize weekly melodies and achieve correct intonation; analysis, rhythmic, melodic and harmonic dictation; use of computer assisted instruction in Practica Musica, lab portion of the class (MUST 130). Field trips might be required. (A-F Only) Transfer: (CSU, UC)

MUST 134—AURAL SKILLS 4 1 UNIT
54 Lab Hours, Prerequisite: Satisfactory completion of MUST 133.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MUST 124 or be concurrently enrolled.
Sequential continuation of MUST 132, Aural Skills 2, supplements the study of written music theory (MUST 124) by practical application of singing, ear-training, and performance techniques; further development of musicianship skills through weekly singing of chromatic melodies from textbook using movable Do Solfege and conducting; further development of keyboard skills to harmonize weekly melodies and improve intonation; analysis, harmonic dictation using Roman numerals; use of computer assisted instruction in Practica Musica, lab portion of the class (MUST 130). Field trips might be required. (A-F Only) Transfer: (CSU, UC)
NR  (Natural Resources)

Dean: Mark A. Anglin
Division Office: Agriculture, Room 100
Phone: (209) 575-6200
Division website: www.mjc.edu/prospective/programs/agens/index.html
Instructors: Mike Morales, Dale Pollard

In this program the student will develop skills and knowledge in animal/plant science and I.D., mechanics, communications, public relations, and computations specific to become a park ranger maintenance person, or private entrepreneur in allied jobs including game farm worker. This program will also prepare the student for transfer to a state university or university program when the General Education requirements are completed. Contact the division office in the Agriculture Building for advising assistance.

NR 50—SURVEY OF NATURAL RESOURCES  3 UNITS
36 Lecture hours, 54 Lab hours
Survey of natural resources. Their importance to society and ecological principles of resource conservation, identification, conservation, and use of renewable and nonrenewable resources. Career opportunities and industries associated with natural resources. Field laboratories, including some Saturdays, required. Lecture/Laboratory.

NR 52—INTRODUCTION TO AGRICULTURE RESOURCES AND RURAL RECREATION  3 UNITS
36 Lecture hours, 54 Lab hours
Natural resources as industries and basic skills relate to natural resources management. Concepts in natural resources management, soil and land, water, forest, fish and wildlife, outdoor recreation, energy, mineral and metal resources, and opportunities for employment. Field trips required. Lecture/Laboratory.

NR 200—SOILS  4 UNITS
54 Lecture hours, 54 Lab hours
Study of soil derivation, classification and characteristics as related to natural and human systems. Soil as a natural system including chemistry, ecology and geology. Soil use and management including erosion, moisture retention, structure, cultivation and organic matter. Special emphasis placed on the relationship between natural and agronomic soil systems. Laboratory topics include soil type, classification, soil chemistry, water and nutrient management and soil microbiology. Field trips are required. (A-F Only) Lecture/Lab. Transfer: (CSU, UC) General Education: (MIC-GE: A)(CSU-GE: B1, B3) (IGETC: 5A, 5C)

NR 215—WILDLIFE PRODUCTION  3 UNITS
36 Lecture hours, 54 Lab hours
Wildlife production and management and its relationship to humans; managing game for sustained yields. Production principles for common game species found in this area; habitat improvement; species compatibility and interrelationships; wildlife and fish identification. Field trips required. Lecture/Laboratory. (A-F Only) Transfer: CSU (CC NARTC 181) General Education: (MIC-GE:A)

NR 220—INTRODUCTORY FORESTRY  3 UNITS
36 Lecture hours, 54 Lab hours
Introduction to the integrated management of trees, soils, water, fish and wildlife for the production of wood and fiber products. Emphasis is on both the traditional and emerging uses of the forest resources to satisfy human needs and the protection of the public trust. Field trips required. Lecture/Lab. (A-F Only) Transfer: CSU (CC FORES 1) General Education: (MIC-GE:A)

NR 222—NATIVE TREE AND SHRUB IDENTIFICATION  3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as Native Plants Identification
The study of botanical characteristics, taxonomy, physiology, and community relationships of the major trees and shrubs in California and the Western United States. Includes discussion of commercial uses and geographic ranges of native plants common to the region. Field trips outside of regular class hours. Field trips required. Lecture/Lab (A-F Only) Transfer: CSU

NR 224—INTRODUCTION TO FOREST MEASUREMENT  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Satisfactory completion of EHS 201 or 202 or NR 220 or 222 or 376, or equivalent.
Introduction to principles and practices of interpreting aerial photographs. Emphasis on vegetation typing, mapping, road reconnaissance and inventory techniques. Use of aerial photographs to obtain location, area, vegetation types, timber volume. Explanation of Geographic Information Systems and its application to forestry and natural resources. Field trips required. Lecture/Laboratory. (A-F Only) Transfer: CSU (CC NARTC 160)

NR 230—OUTDOOR/FOREST RECREATION  3 UNITS
36 Lecture hours, 54 Lab hours
A study of historic, social, political, economic, and environmental factors influencing outdoor recreation at federal, state, and local levels. Survey of conflicts in natural resources land use and solutions to these conflicts. Maintenance and operation of recreational facilities. Field trips may be required. Lecture/Lab(A-F Only) Transfer: CSU

NR 376—FORESTRY TECHNOLOGY  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for success: Satisfactory completion of NR 220 or NR 222 or NR 224.
Additional training in silviculture, cruising, forest management, harvesting, and regulations as determined by the California Forest Practice Act. Field trips required. Lecture/Laboratory. (A-F Only) Transfer: (CC FORES 10) (FORTEC 162)

NR 379—WILDLAND FIRE CONTROL  1 UNIT
9 Lecture hours, 27 Lab hours
Introduction to fundamentals of wildland fire behavior, basic fire fighting strategy, methods of attack to suppress wildland fires. Course is taught in conjunction with U.S. Forest Service. Field trips required. Lecture/Laboratory. (A-F Only) Transfer: (CC NATRE 22)

NURSE  (Nurse Assistant and Associate Degree Nursing)

Dean: Maurice McKinnon, EdD
Division Office: Glacier Hall, Room 165
Phone: (209) 575-6373
Division website: www.mjc.edu/alliedhealth

NURSE 40—NURSE ASSISTANT  5 UNITS
54 Lecture hours, 108 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to obtain a GED or High School diploma. Limitations on Enrollment: Enrollment limited to students who have had a physical examination within the last three months and can provide certification of a PPD and pass a criminal background screening through the Livescan fingerprint process.
Preparation for employment as a nurse assistant in a skilled nursing facility. Upon satisfactory completion of the course, the student is eligible to take the state examination for certification as a Certified Nurse Assistant (CNA). Based on the Model Curriculum for Nurse Assistant Training and Assessment Program following Department of Health Services Guidelines. Organized in fifteen units with content ranging from role and responsibilities of the CNA to death and dying. Student must attend Lecture on Thursday and Friday 1 p.m. - 5 p.m. for the first 2 weeks of the term. No lab the first 2 weeks of the term. Beginning the third week of the term, students attend Lecture on Thursday from 1:00 to 4:05 p.m. and lab on Friday or Saturday from 6:00 a.m. until 2:30 p.m. Additional costs for students: purchase of appropriate uniform for the clinical site, enrollment fees, books, and application fees for the state certification examination. Student may repeat if required by regulation. (A-F Only) Lecture/Lab.
NURSE 115—INTRODUCTION FOR NURSING MAJORS 1/2 UNIT
9 Lecture hours
Formerly listed as NURSE 115 - Guidance for Nursing Majors
Acquaints students with the academic requirements and curriculum for the Associate Degree Nursing program. Students view the role and function of the nurse. Students analyze their educational needs and goals and choose alternatives to enhance success through nursing education. Students will understand the curriculum requirements that pertain to them and begin to formulate an educational plan for an associate of science degree in nursing. The role of aptitudes, interests, values and skills will be addressed. Important aspects of nursing as an occupational choice will be covered along with information regarding the nursing profession. (P/NP Only) Lecture. Transfer: CSU

NURSE 259—LVN TRANSITION: ROLE CHANGE PREPARATION 2 UNITS
27 Lecture hours, 27 Lab hours
Formerly listed as NURSE 259 - LVN Transition: Preparing for a Role Change
Limitations on Enrollment: Limited to Licensed Vocational Nurses with an active license with IV certification. Board of Registered Nursing (BRN) requires Associate Nursing Degree programs to provide a pathway for LVNs to enter an ADN program. This course fulfills one of the BRN’s requirements.
Prerequisite: Satisfactory completion of ANAT 125, MICRO 101, PHYSIO 101 and ENGL 101 and a score of 67 or greater on the Test of Essential Academic Skills (TEAS). Course prerequisites and TEAS score are the same requirements for qualification for entry into the generic ADN program.
The focus of this course is on nursing knowledge and skills that the LVN student needs in order to provide the basis for transition of information and skills required of the registered nurse. Content includes nursing process as it applies to the adaptation theory of nursing practice, LVN role transition to registered nurse, assessment of physical and psychosocial adaptations, pharmacology, and math for medication calculation. Emphasis is on critical thinking in the clinical setting as it applies to nursing practice. Materials Fee Required. (A-F Only) Lecture/Lab. Transfer: CSU

NURSE 260—NURSING PROCESS: PHARMACOLOGY 2 UNITS
36 Lecture Hours,
Limitations on Enrollment: Enrollment limited to students who have been accepted into the Associate Nursing Program.
Introduction to concepts of pharmacology, including pharmacokinetics, pharmaceutical systems of measurements & calculations, drug classifications, and nursing responsibilities in medication administration. Field trips are not required. (A-F Only) Transfer. (CSU)

NURSE 261—NURSING PROCESS: FUNDAMENTALS 8 UNITS
72.00 Lecture Hours, 216.00 Lab Hours
Corequisite: Concurrent enrollment in NURSK 800.
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete NURSE 115.
Limitations on Enrollment: Enrollment limited to students who have been accepted into the Associate Nursing Program.
Applies fundamental concepts and principles of the nursing process to the care and needs of patients within the acute care setting. The primary focus of the course is on assessment and care of patients experiencing alterations in basic health needs. Students practice basic clinical skills in a simulated lab setting prior to beginning care in the acute care facility. Additional theoretical principles taught in the course include therapeutic communication, patient teaching, professional ethics, and legal aspects of nursing. Materials fee required. Field trips might be required. (A-F Only) Transfer: (CSU)

NURSE 262—NURSING PROCESS: SKILLS 1/2 UNIT
27 Lab hours
Prerequisite: Satisfactory completion of NURSE 260 and NURSE 261.
Corequisite: Concurrent enrollment in NURSK 800.
Limitations on Enrollment: Enrollment based on program capacity.
This course prepares the nursing student to perform nursing skills necessary for satisfactory participation in the obstetrics and pediatric clinical setting. Skills included in this course are: intravenous therapy, gavage feeding, infant bathing, delivery table set-up, and correct administration of medications. Materials Fee Required. (P/NP Only) Lab. Transfer: CSU

NURSE 263—NURSING PROCESS: MATERNITY 4 UNITS
45 Lecture hours, 81 Lab hours
Prerequisite: Satisfactory completion of NURSE 262.
Corequisite: Concurrent enrollment in NURSK 800.
Limitations on Enrollment: Program requires it by using a non-evaluative process to limit enrollment from among a pool of qualified students.
Applies the basic principles and concepts of the nursing process to meet the needs of the childbearing woman, the childbearing family and the patient with alterations of the reproductive system. Health maintenance, prevention of illness, and patient/family teaching in the hospital and community setting will be emphasized. Includes socio-cultural-spiritual aspects of the family. (A-F Only) Lecture/Lab. Transfer: CSU

NURSE 264—NURSING PROCESS: PEDIATRICS 4 1/2 UNITS
45 Lecture hours, 108 Lab hours
Prerequisite: Satisfactory completion of NURSE 261 and NURSE 262.
Corequisite: Concurrent enrollment required in NURSK 800.
Limitations on Enrollment: Enrollment limited to students admitted to the Nursing Program.
Applies the principles and concepts of the nursing process to meeting the adaptation needs of the pediatric patient and patient with alterations of the reproductive system. Family-centered care in the hospital and outpatient settings will be emphasized. Throughout the course health maintenance and prevention of illness is emphasized in patient/family teaching. (A-F Only) Lecture/Lab. Transfer: CSU

NURSE 265—NURSING PROCESS: MEDICAL-SURGICAL 6 UNITS
54 Lecture Hours, 162.00 Lab Hours
Corequisite: Concurrent enrollment in NURSK 800.
Limitations on Enrollment: Enrollment limited to students who have been accepted into the Associate Degree Nursing Program.
Applies the principles and concepts of the nursing process that focuses on promoting adaptation of adolescent through senescent clients with serious or complex alterations in health. Students will complete didactic units in oxygenation, cardiovascular, hemotological, immunological, and oncologic nursing. Acute hospital settings and hospice services will be utilized for the clinical practicum of the course. Materials fee required. Field trips might be required. (A-F Only) Transfer: (CSU)

NURSE 266—NURSING PROCESS: MENTAL HEALTH 4 UNITS
54 Lecture Hours, 54 Lab Hours
Corequisite: Concurrent enrollment limited to students who have been accepted into the Associate Degree Nursing Program.
Applies the principles and concepts of the nursing process to meet the need of clients with psychiatric disorders across the life span. Mental health maintenance, prevention of illness, patient/family teaching, and therapeutic communication/relationships will be emphasized. Students will be assigned to an acute psychiatric setting and tertiary areas that support and provide community mental health care services. Field trips might be required. (A-F or P/NP) Transfer: (CSU)

NURSE 267—NURSING PROCESS: ADVANCED MEDICAL-SURGICAL 11 UNITS
81 Lecture hours, 351 Lab hours
Prerequisite: Satisfactory completion of NURSE 265 and NURSE 266.
Corequisite: Concurrent enrollment in NURSK 800.
Limitations on Enrollment: Enrollment limited to students admitted to the Nursing Program.
Includes advances in medical/surgical concepts and principles in the nursing process. Promotes role transition from student nurse to professional nursing through a clinical preceptorship. The student is responsible for all the clinical skills learned in previous semesters, acquires new skills and takes a clinical competency test in the acute care setting. The 5 1/2 week, 180-hour preceptorship is the capstone of the nursing program, encompassing all the clinical, technical and critical thinking skills learned in the program, and emphasizing leadership in management of patient care. In preceptorship, the student works directly with a registered nursing preceptor in the acute care facility. Materials Fee Required. (A-F Only) Lecture/Lab Transfer: CSU

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED  NEW/MODIFIED  PENDING 01/22 or NEEDS FURTHER IO REVIEW

258
NURSK (Nursing: Skills)
Dean: Maurice McKinnon, EdD
Division Office: Glacier Hall, Room 165
Phone: (209) 575-6362
Division website: www.mjc.edu/alliedhealth

NON-CREDIT COURSES

NURSK 800 — NURSING SKILLS DEVELOPMENT
30 Lab hours
Corequisite: Concurrent enrollment in NURSE 259 or NURSE 261 or NURSE 262 or NURSE 263 or NURSE 264 or NURSE 265 or NURSE 266 or NURSE 267 or NURSE 40 or NURSE 350 or NURSE 351 or NURSE 352.
Provides simulated clinical experiences in a supervised laboratory setting for students who must use the Allied Health skills laboratory to achieve the objectives of a course in which they are enrolled. (Non-Graded course) Lab

NURWE (Nursing: Work Experience)
Dean: Maurice McKinnon, EdD
Division Office: Glacier Hall, Room 165
Phone: (209) 575-6362
Division website: www.mjc.edu/alliedhealth

Modesto Junior College serves the needs of its students and those of the community through its Cooperative Vocational Work Experience program. A program objective is to provide guidance and opportunity for career planning by students in the real laboratory of the community’s business and industries. Work experience education results when it encompasses a systematic plan whereby students, while in college, gain realistic employment experiences through part-time work. Students should consult their advisors to determine divisional practice on work experience units acceptable toward major requirements. Pay may or may not be received for work experience programs depending upon the type and place of employment.

NURWE 361 — WORK EXPERIENCE — NURSING  1 UNIT
54 Lab hours
Prerequisite: Satisfactory completion of NURSE 260 and NURSE 261.
Corequisite: Concurrent enrollment in NURSE 262 or NURSE 263 or NURSE 264 or NURSE 265 or NURSE 266 or NURSE 267 or NURSE 299.
Provides the student enrolled in the ADN program an opportunity to obtain nursing experience in a structured clinical work/study community service program in participating clinical agencies. Students gain additional practice in nursing by applying previously learned knowledge and skills. Lecture: 1 hour arranged. 75 hours compensated related work experience per semester equals 1 unit or 60 hours uncompensated related work experience. Four completions allowed. (P/NP Only) Lab

NURWE 362 — WORK EXPERIENCE — NURSING  2 UNITS
108 Lab hours
Prerequisite: Satisfactory completion of NURSE 260 and NURSE 261.
Corequisite: Concurrent enrollment in NURSE 262 or NURSE 263 or NURSE 264 or NURSE 265 or NURSE 266 or NURSE 267 or NURSE 299.
Provides the student enrolled in the ADN program an opportunity to obtain nursing experience in a structured clinical work/study community service program in participating clinical agencies. Students gain additional practice in nursing by applying previously learned knowledge and skills. Lecture: 1 hour arranged. 120 hours compensated related work experience per semester equals 2 units or 120 hours uncompensated related work experience per semester equals 2 units. Four completions allowed. (P/NP Only) Lab

OFADM (Office Administration)
Dean (Interim): John Williams
Division Office: Founders Hall 100
Phone: (209) 575-6129
Division website: mjc.edu/prospective/programs/bbss/
Instructors: Kevin Alavezos, Nancy Badlund

OFADM 201 — INTERMEDIATE KEYBOARDING 1  1 UNIT
18 Lecture hours
Formerly listed as: OFADM - 201: Intermediate Keyboarding
Recommended for Success: Before enrolling in this course, students are strongly advised to complete at least one semester of keyboarding and type a minimum of 45 gross words per minute on a five-minute timing.
First of three modules in OFADM 203. Further development of keyboarding with an emphasis on speed and accuracy, practice and drill on production keyboarding; drill and practice on formatting techniques and procedures for setting up business letters, academic and business reports, tables, business forms, including interoffice memoranda, resumes, minutes, and agendas. (A-F Only) Lecture Transfer: (CSU)

OFADM 202 — INTERMEDIATE KEYBOARDING 2  2 UNITS
36 Lecture hours
Formerly listed as: OFADM - 202: Intermediate Keyboarding
Recommended for Success: Before enrolling in this course, students are strongly advised to complete at least one semester of keyboarding and type a minimum of 45 gross words per minute on a five-minute timing.
First two modules of OFADM 203. Further development of keyboarding with an emphasis on speed and accuracy, practice and drill on production keyboarding; drill and practice on formatting techniques and procedures for setting up business letters, academic and business reports, formal reports and all components, tables, business forms, including interoffice memoranda, resumes, minutes, and agendas. Individualized instruction. (A-F Only) Lecture Transfer: (CSU)

OFADM 203 — INTERMEDIATE KEYBOARDING 3  3 UNITS
54 Lecture hours
Formerly listed as: OFADM - 203: Intermediate Keyboarding
Recommended for Success: Before enrolling in this course, students are strongly advised to possess at least one semester of keyboarding and type a minimum of 45 gross words per minute on a five-minute test.
Further development of keyboarding with an emphasis on speed and accuracy, practice and drill on production keyboarding; drill and practice on formatting techniques and procedures for setting up business letters, academic and business reports, formal reports and all components, tables, business forms, including interoffice memoranda, resumes, minutes, and agendas. Also, the design and creation of effective office forms and publications, such as letterheads, notepads, cover pages, announcements, flyers, and newsletters. (A-F Only) Lecture Transfer: (CSU)

OFADM 231 — INTERMEDIATE WORD PROCESSING  3 UNITS
36 Lecture hours, 54 Lab hours
Also offered as: CMPSC - 231: Intermediate Word Processing
Recommended for Success: Before enrolling in this course, students are strongly Advised to satisfactorily complete OFADM 203 and/or satisfactorily complete OFADM 330.
Intermediate word processing features such as mail merge, styles, graphics, tab, and sorts. Features will be applied in creating business documents. (A-F or P/NP) Lecture /Lab Transfer: (CSU)

OFADM 232 — ADVANCED WORD PROCESSING AND DESKTOP PUBLISHING  3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as: OFADM - 232: Advanced Word Processing and Desktop Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete CMPSC 231 or satisfactorily complete OFADM 231 or have strong prior knowledge of word processing software.
Application of advanced word processing techniques and procedures including those features relating to desktop publishing. For students who are already knowledgeable in word processing software. (A-F or P/NP) Lecture /Lab Transfer: (CSU)
OFADM 301—BEGINNING KEYBOARDING  1½ UNITS
9 Lecture hours, 54 Lab hours
Development of basic alpha/numeric keyboarding skills needed for the keyboard by touch. Drills to
develop speed and accuracy on straight copy. Designed for students with no previous keyboarding/
typewriting experience. (A-F Only) Lecture /Lab Transfer: (MUC OFADM 301+OFADM 302=CC OFTEC 120)

OFADM 302—BEGINNING DOCUMENT PROCESSING 1½ UNITS
9 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 301 or have ability to keyboard and type a minimum of 35 gross words per minute on a three-minute timing.
Further development of speed and accuracy on the alpha/numeric keyboard. Instruction in
opening, saving, naming, printing documents, deletion and addition of text; margin/setting; spacing techniques; text editing techniques; vertical/horizontal centering; basic business letter, memo, and report formats. (A-F Only) Lecture /Lab Transfer: (MUC OFADM 301+OFADM 302=CC OFTEC 120)

OFADM 303—KEYBOARDING FOR SPEED AND ACCURACY  ½ UNIT
27 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 301 or have the ability to keyboard by touch at 20 gross words per minute.
Keyboarding course designed to diagnose a student’s current keyboarding skills needs, prescribe
appropriate practice materials, measure skill development, improve speed and accuracy, and continually evaluate the skill building process. Three completions allowed. (A-F Only) /Lab

OFADM 304—PROFESSIONAL ENGLISH FOR BUSINESS 3 UNITS
54 Lecture hours
Review of the mechanics of correct English usage as applied in the business environment. Empha-
sis is on sentence structure, word usage, punctuation, spelling, business vocabulary, dictionary us-
ger, grammar review, and proofreading. Heavy emphasis is placed on the use of various business
documents throughout the course for students to apply their writing skills. (A-F or P/NP) Lecture

OFADM 305—RECORDS MANAGEMENT  3 UNITS
45 Lecture hours, 27 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 353 and have ENGL 50 eligibility.
Filing rules and their application to alphabetic, numeric, geographic, and subject systems; establish-
ing manual and computer filing systems; records control, retention, transfer, equipment, and
supplies; micrographics; using the computer to store, organize, maintain, and retrieve information.
Field trips may be required. (A-F or P/NP) Lecture /Lab

OFADM 311—BUSINESS PROOFREADING AND EDITING  3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to possess keyboarding skills to keyboard assignments.
Development of skills in transcribing notes including mastery of problems in spelling, word usage,
punctuation, vocabulary, grammatical construction, capitalization, word division, proofreading,
and use of numbers. Field trips are not required. (A-F or P/NP) Lecture /Lab

OFADM 313—OFFICE SKILLS 3 UNITS
54 Lecture hours
A study of various positions available in an office. Emphasis on location, skills, salary, benefits,
and retirement packages of office positions. Covers entry-level skills and experiences necessary
for beginning office positions, including career planning, telephone, and time management skills.
Recommended as a first semester course for students pursuing an Office Administration or Clerical
environment. Two completions allowed. (A-F or P/NP) Lecture /Lab

OFADM 314—OFFICE PROCEDURES & TECHNOLOGIES  3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 302 and satisfactorily complete OFADM 362 and satisfactorily complete OFADM 231 or have prior knowledge of word processing software.
Study of attributes and skills needed to work in an office. Explores duties of administrative assistants. Topics include workplace environment, workplace behaviors, telecommunications, re-
prographics, oral and written communications, mailing and shipping, and record keeping. (Course only offered during fall semester.) Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CC OFTEC 131)

OFADM 315—TODAY’S OFFICE 2 UNITS
108 Lab hours
Prerequisite: Satisfactory completion of OFADM 202 and OFADM 314.
Provides a simulated office environment to give students the experience that is often necessary in obtaining and keeping an office position. Students will be “hired” as an employee within the simulated office with the availability of transferring to other positions later in the course. Emphasis on application of skills and knowledge necessary to be an effective employee. Upon mastery of necessary skills, students may be placed as interns in offices to gain additional experience. The course should be taken in the student’s last semester before graduation or certificate completion. (A-F Or P/NP) /Lab

OFADM 320—TELEPHONE TECHNIQUES 1 UNIT
18 Lecture hours
Development of effective use of the telephone. Scenarios include appropriate greetings, placing
calls on hold, dealing with difficult callers, and communication on the telephone. Telephone
equipment and services are also covered. (A-F or P/NP) Lecture

OFADM 328—MACHINE TRANSCRIPTION 1 UNIT
9 Lecture hours, 27 Lab hours
Formerly listed as: OFADM - 328A: Machine Transcription
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 311 or satisfactorily complete OFADM 304 and have the ability to keyboard 40 gross words per minute on a three-minute timing. Instruction and practice in the use of software designed to assist in the transcription of audio recordings. Individualized instruction in the keyboarding of general business documents including letters, memos, press releases, and reports. Two completions allowed. (A-F Only). Lecture /Lab

OFADM 329—MACHINE TRANSCRIPTION 2 2 UNITS
18 Lecture hours, 54 Lab hours
Formerly listed as: OFADM - 328B: Machine Transcription
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 311 or satisfactorily complete OFADM 304 and have the ability to keyboard 40 gross words per minute on a three-minute timing. Instruction and practice in the use of software designed to assist in the transcription of audio recordings. Individualized instruction in the keyboarding of general business documents including letters, memos, press releases, and reports. (A-F Only). Lecture /Lab

OFADM 330—BEGINNING WORD PROCESSING  3 UNITS
36 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 311 or satisfactorily complete OFADM 304 and have the ability to keyboard 40 gross words per minute on a three-minute timing. Instruction and practice in the use of software designed to assist in the transcription of audio recordings. Individualized instruction in the keyboarding of general business documents including letters, memos, press releases, and reports. (A-F Only). Lecture /Lab

OFADM 353—INTRODUCTION TO COMPUTERS AND WINDOWS 1 UNIT
9 Lecture hours, 27 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have the ability to keyboard by touch. Basic introduction to computers and the Windows operating environment. Explains components of a computer system and provides hands-on training using a personal computer. Intended for students new to using personal computers and the Windows environment. Two completions allowed. (A-F Only). Lecture /Lab

OFADM 356—INTRODUCTION TO WORD PROCESSING 1 UNIT
9 Lecture hours, 27 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 301 and/or have the ability to keyboard by touch. Beginning course in the use of word processing software. Features of the software will be explained and demonstrated in a hands-on learning environment. Two completions allowed. (A-F Only) Lecture /Lab

OFADM 359—INTRODUCTION TO SPREADSHEET SOFTWARE  1 UNIT
9 Lecture hours, 27 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have satisfactorily completed OFADM 333.
Beginning course in the use of spreadsheet software. Features of software will be explained and demonstrated in a hands-on learning environment. Two completions allowed. (A-F Only) Lecture /Lab

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED- NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
OFADM 361—INTRODUCTION TO DATABASES 1 UNIT
9 Lecture hours, 27 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 353 and satisfactorily complete OFADM 356 and satisfactorily complete OFADM 359 and/or satisfactorily complete OFADM 362.
A beginning course for using features of database software. Course is designed to enable students to learn and apply the features of database software to organize information and to work with stored information. Two completions allowed. (A-F Only) Lecture /Lab

OFADM 362—INTRODUCTION TO BUSINESS PRESENTATION SOFTWARE 1 UNIT
9 Lecture hours, 27 Lab hours
Formerly listed as: OFADM - 362: Intro to Business Presentation Software Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 353.
A beginning course using computer software to design slides, outlines, note pages, and audience handouts for business presentations. Two completions allowed. (A-F Only) Lecture /Lab

OFADM 363—UNDERSTANDING THE INTERNET 1 UNIT
9 Lecture hours, 27 Lab hours
Fundamentals of using the Internet. Topics included in the course: Internet terminology, use of browsers, search engines and sites, downloading of files, and e-mail. (A-F Only) Lecture /Lab

OFADM 364—GRAMMAR IN THE OFFICE 1 UNIT
18 Lecture hours
Basic English grammar for office employees. Emphasis on parts of speech, subject and verb agreement, pronoun usage, sentences, punctuation, number usage, and business terms. (A-F Only) Lecture

OFADM 366—PROOFREADING TECHNIQUES 1 UNIT
9 Lecture hours, 27 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have successfully completed OFADM 304.
Self-paced course addressing the skills needed to identify mechanical and content errors in handwritten or printed text by using proofreader’s marks. Grammar, punctuation, and spelling rules will be reviewed. (A-F Only) Lecture/Lab

OFADM 375—10-KEY ON THE COMPUTER 1 UNIT
18 Lecture hours
Formerly listed as: OFADM - 375: 10-KEY on the Computer Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete OFADM 301 or have the ability to keyboard by touch. Touch system of numeric keys on the 10-key pad. (A-F Only) Lecture

The Physical Education program at MJC offers a balanced approach based upon the individual interests and needs of the student. In addition to a wide spectrum of physical education activity classes, MJC offers intercollegiate competition in many sports and adaptive physical education courses. Theory classes are offered in basketball, football, track and field, wrestling, softball, and baseball. Since the majority of career opportunities in Physical Education exist for students completing a bachelor’s degree, general education and transfer courses are carefully planned so that students are well prepared for individual career needs and upper division college work.

Courses should be selected with the assistance of a Physical Education faculty advisor. Students interested in a career in Physical Education are encouraged to take a variety of activity classes each semester, thereby broadening their activity skills before transfer.

Repeat Limitations on Physical Education Courses
No activity may be taken more than four times, regardless of the number of skill levels it may have listed. Persons who have met the limit of repetition of credit courses as stated in the catalog may audit the course with the approval of the instructor. Auditors receive no credit for class work, no grade, and no record is kept of their performance in class. Enrollment is allowed after the first day of instruction. An Audit Enrollment Form can be obtained in the Admissions Office along with a payment of $15.00 per unit paid to the Business Office. Students enrolled in ten (10) or more units at the time audit enrollment occurs will not be assessed the fee up to three (3) units.

For purposes of this limitation, activities are defined as Adaptive, Baseball, Basketball, Body Mechanics, Bowling, Cross Country, Dance, Diving, Fencing, Football, Golf, Gymnastics, Lifesaving, Racquetball, Self-Defense, Soccer, Softball, Swimming, Table Tennis, Tennis, Track and Field, Volleyball, Water Polo, Weight Training, and Wrestling.

• CSU - 12 units maximum.
• UC - See UC All Campus Credit List for credit limitations available in Counseling Office

Activities Requirement for Degree
Physical Education classes used to fulfill the graduation activities requirement must be from the PEA, PEC, PEM, PEW, PEVM, or PEVW class listings.

PE 100—INTRODUCTION TO PHYSICAL EDUCATION 3 UNITS
54 Lecture hours
History, philosophy, and principles of Physical Education. Study of the aims and objectives of modern physical education with emphasis on the development of basic philosophy and background for the profession of physical education. (A-F Only) Lecture. Transfer: (CSU, UC)

PE 101—BASKETBALL THEORY 1 UNIT
9 Lecture hours, 27 Lab hours
Basketball rules, mastery of position and team play. Development of strategies and philosophy. (A-F Only) Lecture/Lab. Transfer: (CSU, UC)

PE 102—OFFENSIVE FOOTBALL THEORY 2 UNITS
54 Lecture hours
An analysis of offensive position and team play. Critical analysis of offensive techniques, rules, physical and mental training procedures, and film evaluation. Three completions allowed. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)
PE 103—TRACK AND FIELD TEAM CONCEPTS 1 UNIT
18 Lecture hours
Specialized approach to track and field. Rules, training procedures, strategy, and performance evaluation. Three completions allowed. (A-F or P/NP) Lecture. Transfer: (CSU, UC)

PE 104—WRESTLING THEORY 1 UNIT
9 Lecture hours, 27 Lab hours
Analysis of wrestling; rule interpretation, winning psychology, film analysis. Repeatability up to 2 units maximum. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)

PE 105—DEFENSIVE FOOTBALL THEORY 2 UNITS
18 Lecture hours, 54 Lab hours
An analysis of defensive position and team play. Critical analysis of defensive techniques, rules, physical and mental training, and film evaluation. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)

PE 106—OFFENSIVE BASEBALL THEORY 2 UNITS
18 Lecture hours, 54 Lab hours
An analysis of offensive techniques, position and team play. Coverage of rules and training procedures. Three completions allowed. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)

PE 107—DEFENSIVE BASEBALL THEORY 2 UNITS
18 Lecture hours, 54 Lab hours
An analysis of defensive techniques, position and team play. Coverage of rules and training procedures. Three completions allowed. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)

PE 108—CARE AND PREVENTION OF ATHLETIC INJURIES 3 UNITS
54 Lecture hours
Designed for prospective coaches, trainers, health and physical educators, and athletes, to aid in the recognition, evaluation, and care of athletic injuries. Techniques in taping, prevention, and rehabilitation of injuries. Sport specific injuries are examined and discussed to familiarize students with the multitude of injuries that can and will occur in sporting activities. (A-F or P/NP) Lecture. Transfer: (CSU, UC)(CC HHP 4)

PE 109—PEAK PERFORMANCE THROUGH MENTAL TRAINING 3 UNITS
54 Lecture hours
Techniques for maximizing sport and dance performance through the development of mental skills and strategies for stress control, imagery, goal setting and concentration. (A-F or P/NP) Lecture. Transfer: (CSU, UC)

PE 110—OFFICIATING: SPRING SPORTS 3 UNITS
54 Lecture hours
Regulations and techniques of officiating baseball and softball. (A-F or P/NP) Lecture. Transfer: (CSU, UC)

PE 111—APPLICATION OF SPORTS MEDICINE 3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of PE 108
Practical application of modalities and techniques used in the treatment and care of athletic injuries for the prospective Athletic Trainer. Emphasis on injury recognition, development of conditioning and reconditioning programs, and taping techniques to enable athletes to return to competitive activities. Lecture. (A-F Only) Transfer: (CSU, UC)

PE 113—OFFENSIVE/DEFENSIVE SOFTBALL THEORY 2 UNITS
18 Lecture hours, 54 Lab hours
Analysis of offensive and defensive techniques, strategies, positions, and team play including rules and physical and mental training. Course designed to prepare the student to compete in collegiate softball. Three completions allowed. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC)

PE 114—CROSS COUNTRY CONCEPTS 1 UNIT
18 Lecture hours
Specialized approach to cross country and long distance running. Training procedures, performance evaluation, nutritional strength, and pacing strategy components. Three completions allowed. (A-F or P/NP) Lecture. Transfer: (CSU, UC)

PE 115—OFFICIATING: FALL SPORTS 3 UNITS
54 Lecture hours
Regulations and techniques of officiating football and basketball. (A-F or P/NP) Lecture. Transfer: (CSU, UC)

PE 116—FOOTBALL TEAM PLAY CONCEPTS 2 UNITS
18 Lecture hours, 54 Lab hours
Essential concepts of team building in football. Goal-setting and development of individual roles. Exploration of team communication processes and activation of leadership of the successful football team. Provides both the participant and the future mentor specialized exposure for an in-depth survey of team building in regard to the sport of football. Lecture/Laboratory. Field trips may be required. (A-F or P/NP) Fall. Transfer: (CSU, UC)

PE 120—SPORTS AND SOCIETY 3 UNITS
54 Lecture hours
Examine sports as a significant aspect of modern culture and a major institution of modern society. Topics that will be analyzed include: gender and sports, the relationship between organized sports and aggression, sports as an economy, and the issues of social class and race in sports. Lecture. (A-F or P/NP) Transfer: (CSU, UC)

PE 121—COACHING EFFECTIVENESS 3 UNITS
54 Lecture hours
Role of coach in athletics, ethics, leadership and management principles, psycho-social aspects of athlete behavior management, motor learning, physiological systems and physical training theory. (A-F Only) Transfer: (CSU, UC)

PE 122—ADAPTED PHYSICAL EDUCATION THEORY AND LAB 3 UNITS
36 Lecture hours, 54 Lab hours
Common definitions, scope and basic concepts of Adapted Physical Education. A study of specific disabilities, with a primary focus on identification, etiology and implications for physical education. Course includes practical experience in the field. Intended for students interested in pursuing a career in physical therapy, nursing, adapted physical education, gerontology or fields requiring one to work with individuals with disabilities. Lecture/Laboratory. Transfer: (CSU, UC)(A-F Only)

PE 124—INTRODUCTION TO KINESIOLOGY 3 UNITS
18 Lecture hours, 54 Lab hours

PE 130—PERSONAL TRAINER HEALTH FITNESS INSTRUCTOR 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 195 or satisfactorily complete PEC 197 or satisfactorily complete PEW 192. Basic competency in designing and implementing fitness programs for a healthy population. Features both practical and theoretical instruction as well as career advice. Emphasis on safe, effective and efficient methods of teaching cardiovascular training, resistance training, balance training and flexibility training for individuals or groups. Covers a broad range of exercise physiology, exercise program design, anatomy of major muscle groups, interval and circuit training, exercise biomechanics, advanced lifting techniques, the basics of working with special populations, and exercise progression. (A-F or P/NP) Lecture. Transfer: CSU

PE 141—SUPERVISION IN ATHLETIC TRAINING 2 UNITS
18 Lecture Hours, 54 Lab Hours
Prerequisite: Satisfactory completion of PE 108.
Policies and procedures, emergency protocols, vital signs, bloodbourne pathogens, and daily functions that are necessary for the student to work in the Athletic Treatment Center. Continued development in decision-making strategies, analysis, and an awareness of the factors related to medical protocols. Basic skill development in working in the Athletic Treatment Center with athletes and coaches for an in depth experience related to sports medicine. Four completions allowed. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC)

PE 194—INTRODUCTION TO WORLD DANCE 3 UNITS
54 Lecture hours
A survey of dance and its development as an art form through social, political and cultural context. Investigation of cultural traditions and styles, values, aesthetics and more will be explored. (A-F only) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE:C)(CSU-GE: C1)(IGETC: 3A)
**PEA 104—ADAPTED STRENGTH DEVELOPMENT**  
1 UNIT  
54 Lab hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of disability and recommendation of medical specialist. Development and maintenance of muscular strength for students with physical/medical limitations. Emphasis on encouraging independence and teaching lifelong fitness knowledge and skills. Four completions allowed. (A-F or P/NP) Lab. MJC Activities. Transfer: (CSU, UC)

**PEA 106—FUNCTIONAL WATER EXERCISE**  
1 UNIT  
54 Lab hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of physical or learning disability or motor problems. A specialized course involving aquatic exercises which include range of motion, strength, cardiovascular endurance, and flexibility training. Specialized adapted equipment appropriate for limited mobility conditions may be used. Four completions allowed. (A-F or P/NP) Lab. MJC Activities. Transfer: (CSU, UC)

**PEA 107—ADAPTED SWIMMING**  
1 UNIT  
54 Lab hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of physical or learning disability or motor problems. Basic water safety and swim skills. A specialized course in physical exercise which includes personalized and group swim exercises which include strength, endurance, flexibility training and instruction in improving and/or modifying swimming skills. Students may repeat this course by permission. (A-F or P/NP) Lab. MJC Activities. Transfer: (CSU, UC)

**PEA 108—ADAPTED AQUATICS**  
1 UNIT  
54 Lab hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of physical or learning disability or motor problems. A specialized course in aquatic exercise which includes personalized and group exercises for strength, endurance, and flexibility. Specialized adapted equipment appropriate for limited mobility conditions may be used. Four completions allowed. (A-F or P/NP) Lab. MJC Activities. Transfer: (CSU, UC)

**PEA 119—ADAPTED SPORTS**  
1 UNIT  
54 Lab hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to provide medical verification of physical or developmental disability. Introduces students with physical and/or developmental disabilities to a variety of sports. Students will safely participate in sports such as, but not limited to, softball, volleyball, tennis, frisbee, soccer, basketball, and golf. Four completions allowed. (A-F or P/NP) /Lab Transfer: (CSU, UC) General Education: MJC Activities.

**PEA 141—ADAPTED FITNESS**  
1 UNIT  
9 Lecture hours, 27 Lab hours  
Recommended for Success: Provide medical verification of physical or learning disability or motor problems. A specialized course in physical exercise which includes individual and group exercises that include development of an overall fitness routine involving all aspects of body conditioning: balance, flexibility, functional motor control, developmental movement, strength and endurance. There will be an emphasis on encouraging independence and teaching lifelong fitness knowledge and skills. Four completions allowed. Lecture/Laboratory. MJC Activities. Transfer: (CSU, UC)

**PEC 102—WATER AEROBICS**  
1 UNIT  
54 Lab Hours  
Cardiovascular fitness; strength improvement and increased range of motion, and flexibility through low-impact water aerobics. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation (MJC Activities)

**PEC 106,K,A,BADMINTON**  
½, 1 UNIT  
X=4.38 Lecture hours, 16.32 Lab hours, Y=9 Lecture hours, 27 Lab hours  
Basic skills, rules, strategy, practice in singles and doubles play. Laboratory. MJC Activities. Transfer: (CSU, UC) General Education: MJC Activities.

**PEC 108—DEEP WATER AEROBICS**  
1 UNIT  
54 Lab hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to demonstrate basic swimming and/or water safety skills. A course in aquatic exercise which includes group exercises utilizing strength, endurance, and flexibility training in deep water which can involve specialized aquatic equipment. Four completions allowed. (A-F or P/NP) /Lab Transfer: (CSU, UC) General Education: MJC Activities.

**PEC 111—BEGINNING RACQUETBALL**  
1 UNIT  
54 Lab hours  

**PEC 112—INTERMEDIATE RACQUETBALL**  
1 UNIT  
54 Lab hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 111. Intermediate skills and theory. Basic singles and doubles play. Participation at local court. Expenses are the responsibility of the student. Materials Fee Required. Four completions allowed. (A-F or P/NP) Lab. MJC Activities. Transfer: (CSU, UC)

**PEC 118—BOWLING**  
1 UNIT  
54 Lab hours  
Fundamentals of bowling. Students are required to pay line and shoe charges at bowling alley. Four completions allowed. (A-F or P/NP) /Lab Transfer: (CSU, UC) General Education: MJC Activities.

**PEC 120—HIP HOP**  
1 UNIT  
X=4.38 Lecture hours, 13.12 Lab hours, Y=9 Lecture hours, 27 Lab hours  
Also listed as THETR 170  
Fundamental skills of hip hop dance derived from the current dance vernacular and culture. Dance movement education, exploration, and recreation. May be completed up to 4 times. Lecture/Lab. (A-F or P/NP) MJC Activities. Transfer: (CSU, UC)

**PEC 122—MODERN DANCE 1**  
1 UNIT  
54 Lab hours  
Also offered as: THETR - 185  
Formerly listed as: THETR - 185 Beginning Modern Dance  
Basic modern dance technique. Beginning composition, improvisation, dance history, and philosophy. Dance as an art form and as recreation. Four completions allowed. (A-F or P/NP) /Lab MJC Activities. Transfer: (CSU, UC)
PEC 123—MODERN DANCE 2 
1 UNIT
54 Lab hours
Also offered as: THETR - 186
Formerly listed as: THETR - 186A: Intermediate Modern Dance
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 185 or satisfactorily complete PEC 122.
Introduction, exploration, and experience in choreography and performance. Movement through space, energy and time, and compositional form. Four completions allowed. (A-F or P/NP) /Lab
Transfer: (CSU, UC) General Education: (MJC-GE: Activities)

PEC 124—MODERN DANCE 3 
1 UNIT
54 Lab hours
Also offered as: THETR - 187
Formerly listed as: THETR - 187A: Advanced Modern Dance
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 186 or satisfactorily complete PEC 123.
Emphasis on advanced technical and artistic performance skills, composition, improvisation, partnering, and dance history. Four completions allowed. (A-F or P/NP) /Lab MJC Activities.
Transfer: (CSU, UC)

PEC 125—BEGINNING BALLROOM DANCE 
1 UNIT
54 Lab hours
Formerly listed as: PEC 125—Beginning Ballroom Dance
An introduction to ballroom dancing, including basic steps in some of the most popular Latin and American dance rhythms, may include the Waltz, Foxtrot, Rhumba, Swing, Samba, the Cha-Cha, Tango, contemporary ballroom, line dancing, square dancing, and polka. Students will learn to identify musical breaks and rhythms appropriate for each dance. Four completions allowed. (A-F or P/NP) /Lab MJC Activities.
Transfer: (CSU, UC)

PEC 126—JAZZ 1 
1 UNIT
54 Lab hours
Also offered as: THETR - 188
Formerly listed as: THETR - 188A: Jazz Dance
Technique of Jazz Dance with explorations into contemporary derivations of jazz. Emphasis on technical style of the form and the interrelationship of music and movement. Four completions allowed. (A-F or P/NP) /Lab MJC Activities.
Transfer: (CSU, UC)

PEC 127—BALLET 2 
1 UNIT
54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 133 or THETR 189.
Intermediate level ballet technique and terminology. Students are required to have appropriate dance shoes and dance attire. Four completions allowed. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 128—AEROBICS 
1 UNIT
54 Lecture hours
Also offered as: THETR - 129
Recommended for Success: Before enrolling in this course, students are strongly advised to be able to move and breathe with reasonable ease and with limited risk for incurring injury. Aerobic movements for improved cardiovascular condition, muscle strength and endurance, flexibility, balance, agility, coordination, and weight control. Four completions allowed. (A-F or P/NP) /Lab MJC Activities.
Transfer: (CSU, UC)

PEC 129—JAZZ 2 
1 UNIT
54 Lecture hours
Also offered as: THETR - 129
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 188 or PEC 126.
Intermediate technique of Jazz Dance with explorations into contemporary derivations of jazz. Emphasis on technical style of the form and the interrelationship of music and movement. Four completions allowed. (A-F or P/NP) Lab MJC Activities.
Transfer: (CSU, UC)

PEC 130X, A—INTERNATIONAL FOLK DANCE 
½, 1 UNIT
X=4.38 Lecture hours, 9 Lab hours A=9 Lecture hours, 27 Lab hours
International folk dance is accessible to the average person in good condition at this introductory level. Dances which originated with people living in or native to various countries/areas, such as Middle East, Balkans, Russia, etc. Dance exploration and recreation. Three completions allowed. (A-F or P/NP) Lecture/Laboratory. MJC Activities. Transfer: (CSU, UC)

PEC 131—AEROBICS 2 
1 UNIT
54 Lab Hours
Intermediate aerobic movements with improved cardiovascular condition, muscle strength and endurance. Greater use of flexibility, balance and agility during aerobic routines. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 132—BALLET 1 
1 UNIT
54 Lab Hours
Also offered as: THETR - 189: Ballet 1
Fundamental ballet technique and terminology. Students are required to have appropriate dance shoes and dance attire. Four completions allowed. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 134X, A—CONTACT IMPROVISATION 
½, 1 UNIT
X=9 Lecture hours, 9 Lab hours A=18 Lecture hours, 18 Lab hours
Contact improvisation is an exciting movement art form, exploring the vast potential for movement generated by two or more people, communicating spontaneously through weight, motion, and touch. Four completions allowed. Lecture/Laboratory. MJC Activities. Transfer: (CSU, UC)

PEC 135—SPRINGBOARD DIVING 
1 UNIT
54 Lab Hours
Springboarding diving course for students of all ability levels. Workouts will include stretching, strength development, flexibility and coordination exercises, techniques of the approach, hurdle, press, takeoff, flight and entry. Mid-air maneuvers will be identified and practiced on one meter and three meter diving boards as skill levels increase. Basic water safety and related safety issues will be included. Four completions allowed. (A-F or P/NP) Lab MJC Activities.
Transfer: (CSU, UC)

PEC 136—INDOOR ROCK CLIMBING 
1 UNIT
54 Lab Hours
Indoor rock climbing class covering climbing techniques, safety equipment, and basic safety skills used by climbers and belayers. Classes will be held at StoneHenge Climbing Gym in Modesto. Fitness requirement required. Field trips may be required. Four completions allowed. Laboratory. (A-F or P/NP) MJC Activities.
Transfer: (CSU, UC)

PEC 140—EXERCISE FOR FITNESS 
1 UNIT
54 Lab Hours
Cardiovascular improvement and respiratory efficiency through a variety of physical activities consisting of continuous motion exercises. Four completions allowed. (A-F or P/NP) /Lab

PEC 142—EXERCISE FOR FITNESS 2 
1 UNIT
54 Lab Hours,
Cardiovascular improvement and respiratory efficiency through a variety of high level physical activities and sports skills. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEC 143—BEGINNING GOLF 
1 UNIT
54 Lab hours
Fundamentals of golf. Four completions allowed. (A-F or P/NP) /Lab Transfer: (CSU, UC) General Education: MJC Activities.

PEC 144—INTERMEDIATE GOLF 
1 UNIT
54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 143 or demonstrate basic knowledge and skills of the game. Further application of the fundamentals and rules of golf for the improvement of game skills and knowledge. Four completions allowed. (A-F or P/NP) /Lab Transfer: (CSU, UC) General Education: MJC Activities.

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED  NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW

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### COURSES OFFERED

**PEC 145 REACTIVATION 01/22/13**

**PEC 147 — GYMNASTICS**

- **1 UNIT**
- **54 Lab Hours**
- Tumbling, floor exercise, stunts, and acrobatic skills are taught and practiced in progression and combined for skill development. Four completions allowed. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC Activities)

**PEC 148 — YOGA FOR BETTER HEALTH**

- **1 UNIT**
- **54 Lab hours**
- Fitness class using Yoga postures, breathing, and relaxation techniques to increase flexibility and strength, balance and coordination. Appropriate for all ages and learning abilities. Four completions allowed. (A-F or P/NP) Transfer: (CSU, UC) General Education: MJC Activities

**PEC 150X, A — INTERMEDIATE YOGA FOR BETTER HEALTH**

- **1½, 1 UNIT**
- **54 Lab hours**
- X=4.38 Lecture hours, 13.12 Lab hours, A=9 Lecture hours, 27 Lab hours
- Recommended for Success: PEC 148 or prior experience in yoga.
- Intermediate class using yoga postures, breathing, and relaxation techniques to increase flexibility, strength, balance and coordination. Lecture/Laboratory. MJC Activities. Transfer: (CSU, UC)

**PEC 157 — ADVANCED JUDO**

- **1 UNIT**
- **54 Lab hours**
- Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 165 or PEC 166 or PEW 167 or demonstrate basic judo skills and competencies, along with a knowledge and understanding of judo concepts, terminology, etiquette, and methods of scoring, timekeeping, and elimination systems.
- Intermediate and advanced skills (standing and falling techniques) and strategies to improve judo techniques and enhance competitiveness. Four completions allowed. (A-F or P/NP) Lab. MJC Activities. Transfer: (CSU, UC)

**PEC 159A — SPIRIT LEADERSHIP TRAINING**

- **3 UNITS**
- **18 Lecture hours, 162 Lab hours**
- Instruction, training and development of a corps of spirit leaders to promote enthusiasm for school athletic activities. Lab. MJC Activities. Transfer: (CSU, UC)

**PEC 162 — AIKIDO 1 BASIC**

- **1 UNIT**
- **54 Lab hours**
- Recommended for Success: Before enrolling in this course, students are strongly advised to be able to demonstrate physical activity, such as falling down and standing up. Students are also advised to consult a physician if they are pregnant, or have significant health problems.
- An introduction to the fundamental principles and techniques of Aikido, an ethical Japanese martial art based on non-aggressive, non-resistant, co-creative conflict resolution and internal personal growth by non-competitive means. Four completions allowed. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC)

**PEC 163 — AIKIDO 2 INTERMEDIATE**

- **1 UNITS**
- **54 Lab Hours**
- Formerly listed as: PEC - 163: Aikido 2, Intermediate
- Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 162 or hold Kyo rank from an Aikido Dojo.
- A continuing exploration of the fundamental principles and techniques of Aikido, an ethical Japanese martial art based on non-aggressive, non-resistant, co-creative conflict resolution and internal personal growth by non-competitive means. Four completions allowed. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC Activities)

**PEC 164 — SELF DEFENSE**

- **1 UNIT**
- **54 Lab hours**
- A practical course in self defense. Practice of various basic techniques and principles of balance, leverage, and momentum. Discussion of how to avoid threatening situations in the home or on the street. Four completions allowed. (A-F or P/NP) Lab. MJC Activities. Transfer: (CSU, UC)

**PEC 165 — BEGINNING JUDO**

- **1 UNIT**
- **54 Lab hours**
- Formerly listed as: PEC - 165: Judo
- Judo is a challenging martial art based on the philosophy of using maximum efficiency and maximum effort. This course is designed to teach the fundamental skills and techniques to the student as a recreational activity and/or on a competitive basis. Four completions allowed. Field trips may be required. (A-F or P/NP) /Lab Transfer: (CSU, UC) General Education: MJC Activities

**PEC 166XA — INTERMEDIATE JUDO**

- **½, 1 UNIT**
- **X=4.38 Lecture hours, 13.12 Lab hours, A=9 Lecture hours, 27 Lab hours**
- Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 165.
- Instruction and practice in the intermediate skills of the sport of Judo. Course will cover the terminology, etiquette along with throwing and grappling techniques, with integration of various Kata (forms) and Randori (free exercise). Four completions allowed. (A-F or P/NP) Lecture/Lab. MJC Activities. Transfer: (CSU, UC)

**PEC 168 — BEGINNING SWIMMING**

- **1 UNIT**
- **54 Lab hours**
- Recommended for Success: Before enrolling in this course, students are strongly advised to have the ability to enter shallow water.
- Basic skills of floating, breathing, kicking, pulling, using arms and legs. Four completions allowed. (A-F or P/NP) /Lab (MJC Activities) Transfer: (CSU, UC)

**PEC 169X, A — INTERMEDIATE SWIMMING**

- **½, 1 UNIT**
- **54 Lab hours**
- Recommended for success: Satisfactory completion of PEC 168A.
- Continued development in basic stroke techniques and endurance for intermediate swimming. May be completed up to 4 times. Lecture/Lab (A-F or P/NP). MJC Activities. Transfer: (CSU, UC)

**PEC 170 — ADVANCED SWIMMING**

- **1 UNIT**
- **54 Lab hours**
- Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 168.
- Continued development in stroke techniques, and workout knowledge for advanced swimming. Four completions allowed. (A-F or P/NP) /Lab (MJC Activities) Transfer: (CSU, UC)

**PEC 171 — SWIM FOR FITNESS**

- **1 UNIT**
- **54 Lab hours**
- Limitations on Enrollment: Enrollment limited to students who can swim in deep water.
- Basic stroke techniques and endurance swimming for intermediate and or advanced swimmers. Four completions allowed. (A-F or P/NP - Student choice) /Lab MJC Activities. Transfer: (CSU, UC)

**PEC 172 — LIFEGUARD TRAINING**

- **1 UNIT**
- **54 Lab hours**
- Prerequisite: Pass swimming pre-test, be at least 15 years old on the first day of class.
- Preventive lifesaving, learning how to recognize specific characteristic behaviors of patrons at an aquatic facility; facility emergency planning; First Aid and CPR for the Professional Rescuer included. Successful course completion results in American Red Cross certification in Lifeguard training, CPR and first aid. Lab. (A-F or P/NP). Four completions allowed. Materials fee required. MJC Activities. Transfer: (CSU, UC)

**PEC 174X, A — TABLE TENNIS**

- **½, 1 UNIT**
- **4.38 Lecture hours, 13.12 Lab hours, A=9 Lecture hours, 27 Lab hours**
- Instruction in basic skills, rules, strategy, practice in singles and doubles play, plus supplemental films, video tapes and class competition. Four completions allowed. (A-F or P/NP) Lecture/Laboratory. MJC Activities. Transfer: (CSU, UC)

**PEC 175 — BEGINNING TENNIS**

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

**PEC 176 — INTERMEDIATE TENNIS**

- **1 UNIT**
- **54 Lab hours**
- Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 175.
- Development of net and back-court skills and strategies, net play, volleying, overheads and proficiency in rules, terminology, and etiquette. Four completions allowed. (A-F or P/NP) /Lab Transfer: (CSU, UC) General Education: MJC Activities

**PEC 177 — ADVANCED TENNIS**

- **1 UNIT**
- **54 Lab hours**
- Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 176.
- Skills and strategies of competitive tennis, including tournaments and ladder play. Four completions allowed. (A-F or P/NP) /Lab Transfer: (CSU, UC) General Education: MJC Activities

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**CURRICULUM CHANGES "IMPACT" PROOF**

INACTIVATED · NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER 10 REVIEW
PEC 178 — TOURNAMENT TENNIS 1 UNIT
54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfy sufficiently complete PEC 177.
This course is designed for the experienced tennis player, includes in-class competition. Four completions allowed. (A-F or P/NP). Transfer: (CSU, UC) General Education: MJC Activities.

PEC 179 — TRACK AND FIELD 1 UNIT
54 Lab hours
Generalized training and techniques for track and field. Four completions allowed. (A-F or P/NP). Transfer: (CSU, UC) General Education: MJC Activities.

PEC 182 — TRAINING FOR DISTANCE RUNNING 1 UNIT
54 Lab hours
Endurance distance running with organized training runs. Creating an effective training program, nutrition, weight training and cross training. Four completions allowed. (A-F or P/NP). Transfer: (CSU, UC) General Education: MJC Activities.

PEC 183 — VOLLEYBALL 1 UNIT
54 Lab hours

PEC 184 — POWER VOLLEYBALL 1 UNIT
54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfy sufficiently complete PEC 183.

PEC 186 — INTERMEDIATE VOLLEYBALL 1 UNIT
54 Lab hours

PEC 187 — PILATES FOR FITNESS 1 UNIT
54 Lab hours
A fitness class that utilizes the Pilates exercise system focused on improving flexibility and strength for the total body through a series of controlled movements. Pilates exercises can improve posture, alignment, coordination and balance. Movements are designed to tone muscles without putting stress on the spine. For people of all ages and fitness levels. Four completions allowed. (A-F or P/NP). Transfer: (CSU, UC) General Education: MJC Activities.

PEC 190X,A — ADVANCED WATER POLO ½,1 UNIT
X = 4.38 Lecture hours, 13.12 Lab hours, A = 9 Lecture hours, 27 Lab hours
Recommended for Success: Satisfactory completion of PEC 189 or equivalent.
Advanced team play and game strategy in water polo for recreation exercise. Four completions allowed. Lecture/Laboratory. (A-F or P/NP)(Summer). Transfer: (CSU, UC) General Education: MJC Activities.

PEC 191 — POWERLIFTING 1 UNIT
54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 195 or satisfactorily complete PEC 192.
Advanced techniques of effective strength training in a supervised program with an emphasis on traditional powerlifting using free weight and supplemental exercise programs. Field trips are not required. (A-F or P/NP). Transfer: (CSU, UC) Graduation. (MJC Activities)

PEC 192 — PILATES 2 1 UNIT
54 Lab hours
A fitness class that utilizes intermediate Pilates exercises focused on improving flexibility and core strength. Field trips are not required. (A-F or P/NP). Transfer: (CSU, UC) Graduation. (MJC Activities)

PEC 195 — WEIGHT TRAINING 1 UNIT
54 Lab hours
Principles and procedures of effective strength training techniques in a supervised weight training program. Four completions allowed. (A-F or P/NP). Transfer: (CSU, UC) General Education: MJC Activities.

PEC 197 — ADVANCED WEIGHT TRAINING 1 UNIT
54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 195.
Strength training in a supervised weight training environment with an emphasis on Olympic style weightlifting. Four completions allowed. Field trips are not required. (A-F or P/NP). Transfer: (CSU, UC) Graduation. (MJC Activities)

PEC 197 — ADVANCED WEIGHT TRAINING 1 UNIT
54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 195.
Strength training in a supervised weight training environment with an emphasis on Olympic style weightlifting. Four completions allowed. Field trips are not required. (A-F or P/NP). Transfer: (CSU, UC) Graduation. (MJC Activities)

NON-CREDIT COURSES

PEC 041 — FITNESS FOR LIFE 60 Lab Hours
Exercises designed to modify personal attitudes and actions toward health and physical activity. Exercise modalities may include, but are not limited to: pilates, weight training, aerobics, walking/jogging, and yoga. Four completions allowed. Non-graded. Unlimited repeats. Lecture/Laboratory.

PEM (Physical Education: Men’s Activities)

PEM 108 — BASEBALL 1 UNIT
54 Lab hours
Fundamentals and theory of collegiate baseball. Four completions allowed. Field trips are not required. (A-F or P/NP). Transfer: (CSU, UC) Graduation. (MJC Activities)

PEM 111X, A — BASEBALL — TEAM PLAY CONCEPTS ½,1 UNIT
X = 4.38 Lecture hours, 12.12 Lab hours, A = 9 Lecture hours, 27 Lab hours
Team play approach to game of baseball. Lecture/Laboratory. MJC Activities. Four completions allowed. Transfer: (CSU, UC) General Education: MJC Activities.

PEM 112 — BEGINNING BASKETBALL ½,1 UNIT
X = 4.38 Lecture hours, 13.12 Lab hours, A = 9 Lecture hours, 27 Lab hours

PEM 113X, A — INTERMEDIATE BASKETBALL ½,1 UNIT
X = 4.38 Lecture hours, 13.12 Lab hours, A = 9 Lecture hours, 27 Lab hours
Intermediate skills and theory. Basic team play concepts. Lecture/Laboratory. MJC Activities. Transfer: (CSU, UC) General Education: MJC Activities.

PEM 114X, A — ADVANCED BASKETBALL ½,1 UNIT
X = 4.38 Lecture hours, 13.12 Lab hours, A = 9 Lecture hours, 27 Lab hours
Advanced skills, theory and concepts of competitive team play. May be completed four times. (A-F or P/NP). Lecture/Laboratory. MJC Activities. Transfer: (CSU, UC) General Education: MJC Activities.

PEM 140 — TOUCH FOOTBALL AND KANAKI 1 UNIT
54 Lab Hours
Discussion and practical applications of rules and strategy, with emphasis on individual movements found in offensive and defensive touch football and kanaki. Four completions allowed. Field trips are not required. (A-F or P/NP). Transfer: (CSU, UC) General Education: MJC Activities.

PEM 141 — ADVANCED TOUCH FOOTBALL 1 UNIT
54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to have previously participated in high school and/or intercollegiate sports requiring strength, agility, and physical conditioning. Conditioning, skills, rules and strategies with emphasis on the passing game to prepare participants in advanced football. Four completions allowed. Field trips are not required. (A-F or P/NP). Transfer: (CSU, UC) General Education: MJC Activities.

PEM 162 — SOCCER 1 UNIT
54 Lab Hours
Practical application of basic offensive and defensive tactics, individual and team skills, strategy and rules review; scrimmages. Four completions allowed. Field trips are not required. (A-F or P/NP). Transfer: (CSU, UC) General Education: MJC Activities.
PEVM 163—SOCCER 2
54 Lab Hours
Practical application of intermediate defensive and offensive tactics; individual and team skills, match strategy, and application of the rules. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC Activities)

PEVM 196—ADVANCED WRESTLING (PENDING CC APPROVAL 01/22/13) 1 Unit
54.00 Lab Hours
Advanced wrestling and training methods, and the philosophy behind winning at advanced levels of competition. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC Activities)

PEVM (Physical Education: Varsity Men's Activities)

Courses listed below offer advanced instruction and intensive training in sports fundamentals to develop teams for intercollegiate competition. A varsity activity may be taken a maximum of four times. Participation in intercollegiate sports requires concurrent enrollment in not less than 12 units of work, nine of which must be in courses counting toward the associate degree, remediation, transfer and/or certification. Special medical examinations are required for students participating in competitive sports. Verification of insurance is also required. Participation in a second sport or a second year of a sport requires a 2.0 grade point average and 24 units passed.

PEVM 100—VARSITY BASEBALL 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate baseball. Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVM 105—MEN'S VARSITY BASKETBALL (FALL) 3 UNITS
175 Lab hours
Recommended for Success: PE 101
Instruction, training and competition in intercollegiate basketball. Laboratory/Other. (Fall) Four completions allowed. (A-F Only) MJC Activities. Transfer: (CSU, UC)

PEVM 106—MEN'S VARSITY BASKETBALL - SPRING 1½ UNITS
90 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEVM 105.
Continued instruction, training, and competition in intercollegiate basketball (Spring semester) Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVM 110—MEN'S VARSITY CROSS COUNTRY 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate Cross Country (Fall) Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVM 115—VARSITY FOOTBALL 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate football. Four completions allowed. Field trips may be required. (A-F or P/NP) Lab. MJC Activities. Transfer: (CSU, UC)

PEVM 120—MEN'S VARSITY GOLF 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate golf. Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVM 122—MEN'S VARSITY SOCCER 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate soccer. Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVM 125—MEN'S VARSITY SWIMMING AND DIVING 3 UNITS
175 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 170 and satisfactorily complete PEC 195.
Instruction, training, and competition in intercollegiate swimming and diving. Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVM 130—MEN'S VARSITY TENNIS 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate tennis. Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVM 135—MEN'S VARSITY TRACK AND FIELD 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate track and field events. Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)
PEVW
(Physical Education: Varsity Women's Activities)

Courses listed below offer advanced instruction and intensive training in the fundamentals to develop teams for intercollegiate competition. A varsity activity may be taken a maximum of four times.

Participation in intercollegiate sports requires concurrent enrollment in not less than 12 units of work, nine of which must be in courses counting toward the associate degree, remediation, transfer, and/or certification. Special medical examinations are required for students participating in competitive sports. Insurance is also required. Participation in a second sport or a second year of a sport requires a 2.0 grade point average and 24 units passed.

PEVW 100—WOMEN'S VARSITY BASKETBALL - FALL 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate basketball. (Fall semester) Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVW 101—WOMEN'S VARSITY BASKETBALL - SPRING 1½ UNITS
90 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEVW 100.
Continued instruction, training, and competition in intercollegiate basketball. (Spring Semester) Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVW 103—WOMEN'S VARSITY CROSS COUNTRY 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate cross country running. Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVW 115—WOMEN'S VARSITY GOLF 3 UNITS
175 Lab hours
Instruction, practice, and competition in intercollegiate golf. Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVW 120—WOMEN'S VARSITY SOFTBALL 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate softball. Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVW 123—WOMEN'S VARSITY SOCCER 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate soccer. Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVW 125—WOMEN'S VARSITY SWIMMING AND DIVING 3 UNITS
175 Lab hours
Instruction, training, and intercollegiate competition in swimming and diving. Lab. (A-F or P/NP) MJC Activities. Transfer: (CSU, UC)

PEVW 130—WOMEN'S VARSITY TENNIS 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate tennis. Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVW 135—WOMEN'S VARSITY TRACK AND FIELD 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate track and field events. Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVW 140—WOMEN'S VARSITY VOLLEYBALL 3 UNITS
175 Lab hours
Instruction, training, and competition in intercollegiate volleyball. Four completions allowed. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

PEVW 145—WOMEN'S VARSITY WATER POLO 3 UNITS
175 Lab hours
Instruction, training and competition in intercollegiate water polo. Four completions allowed.

PEW
(Physical Education: Women's Activities)

PEW 164—WOMEN'S INDOOR-OUTDOOR SOCCER 1 UNITS
54 Lab Hours
Fundamentals of women's indoor and outdoor soccer. Four completions allowed. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

PEW 166X, A—WOMEN'S SELF DEFENSE ½,1 UNIT
X=9 Lecture hours, A=9 Lab hours, A=18 Lecture hours, 18 Lab hours
A practical course in women's self defense. Practice of various basic techniques and principles of balance, leverage and momentum. Discussion and practical exercises on how to avoid threatening situations in the home or on the street. Open to all female students. Lecture/Laboratory. MJC Activities. Transfer: (CSU, UC)

PEW 167X, A—WOMEN'S BEGINNING JUDO ½,1 UNIT
X=4.38 Lecture hours, 13.12 Lab hours, A=9 Lecture hours, 27 Lab hours
A practical course in women's self defense. Practice of various basic techniques and principles of balance, leverage and momentum. Discussion and practical exercises on how to avoid threatening situations in the home or on the street. Open to all female students. Lecture/Laboratory. MJC Activities. Transfer: (CSU, UC)

PEW 180—WOMEN'S SOFTBALL 1 UNITS
54 Lab Hours
Discussion and practical application of fast-pitch softball rules, strategy, fielding, throwing, base running, team offense, and team defense. Four completions allowed. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)
PHILO 101—PHILOSOPHY  3 UNITS
54 Lecture hours
A careful and critical examination of some of the “Great Questions” philosophers have pursued from ancient times to the present. Some of these include: What is human nature? What is real? Do we have free will? Does God exist? What can we know? How should we act? What is the source of evil? And, what is the nature of truth? (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: C2)(CSU-GE: C2)(IGETC: 3B)

PHILO 103—SYMBOLIC LOGIC  3 UNITS
54 Lecture hours
An introduction to modern deductive logic; includes sentential and predicate logic with identity theory and definite descriptions. Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: C2)(CSU-GE: C2)(IGETC: 3B)

PHILO 105—REASONING  3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of ENGL 101

PHILO 107—PHILOSOPHY OF SCIENCE  3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of ENGL 101
Systematic study of the methods of scientific inquiry through the application of critical thinking through philosophical analysis of scientific methodology. (A-F or P/NP) Lecture Transfer: (CSU, UC) General Education: (MJC-GE: C2)(CSU-GE: A3)(IGETC: 1B)

PHILO 111—ETHICS: THEORY AND APPLICATION  3 UNITS
54 Lecture hours
Systematic study of reflective choice, standards of right and wrong by which it may be guided and attainable goods toward which it may be directed. Readings on concepts of good, duty, egoism, altruism, freedom, personal and social responsibility. (A-F or P/NP) Lecture Transfer: (CSU, UC) General Education: (MJC-GE: C2)(CSU-GE: A3)(IGETC: 1B)

PHILO 113—PHILOSOPHY OF ART  3 UNITS
54 Lecture hours
An examination of the central features of art as well as alternative accounts of art and aesthetic experience including discussions of beauty, representation, and truth. Field trips may be required. Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: C2)(CSU-GE: C2)(IGETC: 3B)

PHILO 115—RELIGION: A PHILOSOPHICAL AND COMPARATIVE INQUIRY  3 UNITS
54 Lecture hours
Introduction to the philosophical problems of religion and a comparative analysis of religious traditions and spiritual practices. Topics include the nature and existence of God, faith and reason, religious knowledge, language and experience in human life. Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: C2)(CSU-GE: C2)(IGETC: 3B)

PHILO 120—HISTORY OF PHILOSOPHY: ANCIENT  3 UNITS
54 Lecture hours
Western ideas and philosophies from ancient Greece to the 15th century, with a consideration of prominent Eastern philosophies. The primary focus is on Greek and Roman philosophy, and the development of Christian philosophy through the middle ages. Some of the topics include free will/ determinism, the nature of existence, being, definition and logic. Transfer: (CSU, UC) General Education: (MJC-GE: C2)(CSU-GE: C2)(IGETC: 3B)

PHILO 121—HISTORY OF PHILOSOPHY: MODERN  3 UNITS
54 Lecture hours
Western ideas and philosophers in the 17th and 18th centuries, with a consideration of the rise of modern science, rationalist and empirist philosophers, and the critical and transcendental philosophy of Kant. Transfer: (CSU, UC) General Education: (MJC-GE: C2)(CSU-GE: C2)(IGETC: 3B)

PHILO 123—TWENTIETH CENTURY PHILOSOPHY  3 UNITS
54 Lecture hours

PHILO 130—POLITICAL THEORY  3 UNITS
54 Lecture hours
A study of social and political thought using classical and contemporary writings, with emphasis on current issues. Ideologies discussed include democracy, socialism, capitalism, communism, fascism, and anarchism. Transfer: (CSU, UC) General Education: (MJC-GE: C2)(CSU-GE: C2)(IGETC: 3B)

PHILO 135—ENVIRONMENTAL ETHICS  3 UNITS
54 Lecture hours
How ought we to relate to the rest of nature? What, if anything, is the value of wilderness and wild animals? Are we morally bound to use technology in an ecologically responsible manner? Course will address questions and issues such as these that arise when considering the relationship between human beings and the environment. Topics include animal rights, land use policy, sustainability, bioengineering, climate change, environmental justice. Theoretical approaches include deep ecology, anthropocentrism, ecofeminism, and pragmatism. Transfer: (CSU, UC) General Education: (MJC-GE: C2)(CSU-GE: C2)(IGETC: 3B)

PHILO 140—PHILOSOPHY AND FILM  3 UNITS
54 Lecture hours
An introduction to philosophical problems and reasonings through an analysis of films. Topics discussed include philosophy of life and existence, political ideologies, the nature of aesthetic experience, and theories of film. Field trips are not required. Transfer: (CSU, UC) General Education: (MJC-GE: C2)(CSU-GE: C2)(IGETC: 3B)

Phlebotomy
Courses are offered through MJC Community Education (209) 575-6063
PHSCI—(Physical Science)

PHSCI 52—THE WAY THINGS WORK 3 UNITS
54 Lecture hours
Basic physical principles underlying common devices such as cameras, electrical systems, home appliances, and automobiles. General understanding of basic scientific and mechanical principles in order to analyze a wide range of other common devices. (A-F or P/NP) Lecture. General Education: (MJC-GE: A)

PHSCI 161—SCIENCE MATTERS 3 UNITS
54 Lecture hours
Basic ideas (conceptual and applied) underlying the physical sciences and their role in society. Energy and societal issues. Designed to develop science literacy. (A-F or P/NP) Lecture/Lab. General Education: (MJC-GE: A)

PHSCI 164—PHYSICAL SCIENCE ENVIRONMENTAL LAB 1 UNIT
54 Lab hours
Corequisite: Concurrent enrollment required or satisfactory completion of PHYS 161. Laboratory and practical experience in the physical sciences. Emphasis on measuring techniques, data analysis, and the scientific method. (A-F or P/NP) Lab. General Education: (MJC-GE: A)

PHYS (Physics)

PHYS 101—GENERAL PHYSICS: MECHANICS 5 UNITS
54 Lecture hours, 54 Lab hours, 18 Discussion hours
Prerequisite: Satisfactory completion of PHYS 165 and MATH 171. Introduction to calculus-based physics: linear, rotational, and oscillatory mechanics with computer applications. Field trips may be required. (A-F or P/NP) Lecture/Lab/Discussion. Transfer: (CSU, UC) General Education: (MJC-GE: A)

PHYS 102—GENERAL PHYSICS: WAVES, THERMODYNAMICS, & OPTICS 5 UNITS
54 Lecture hours, 54 Lab hours, 18 Discussion hours
Prerequisite: Satisfactory completion of PHYS 101 and MATH 172. Continuation of calculus-based physics: thermodynamics, wave motion, acoustics and optics. Field trips may be required. (A-F or P/NP) Lecture/Lab/Discussion. Transfer: (CSU, UC) General Education: (MJC-GE: A)

PHYS 103—GENERAL PHYSICS: ELECTRICITY, MAGNETISM, & MODERN PHYSICS 5 UNITS
54 Lecture hours, 54 Lab hours, 18 Discussion hours
Prerequisite: Satisfactory completion of PHYS 101 and MATH 172. Continuation of calculus-based physics: electricity, magnetism and modern physics. Field trips may be required. (A-F or P/NP) Lecture/Lab/Discussion. Transfer: (CSU, UC) General Education: (MJC-GE: A)

PHYS 142—MECHANICS, HEAT, & WAVES 5 UNITS
54 Lecture hours, 54 Lab hours, 18 Discussion hours
Prerequisite: Satisfactory completion of MATH 122. Non-calculus introduction to principles and laws of mechanics, thermodynamics and waves. Field trips may be required. (A-F or P/NP) Lecture/Lab/Discussion. Transfer: (CSU, UC) General Education: (MJC-GE: A)

PHYS 143—ELECTRICITY, MAGNETISM, OPTICS, ATOMIC AND NUCLEAR STRUCTURES 5 UNITS
54 Lecture hours, 54 Lab hours, 18 Discussion hours
Prerequisite: Satisfactory completion of PHYS 142. Continuation of PHYS 142, including electricity, magnetism, light and atomic structure. Field trips may be required. (A-F or P/NP) Lecture/Lab/Discussion. Transfer: (CSU, UC) General Education: (MJC-GE: A)

PHYS 160—DESCRIPTIVE INTRODUCTION TO PHYSICS 3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process. A survey course of selected topics in physical inquiry to include mechanics, wave motion, thermodynamics, electromagnetism and modern physics. Physical theory is explored on a conceptual level with emphasis placed on applying physical principles to everyday phenomena. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: A)

PHYS 164—PHYSICS ENVIRONMENTAL LABORATORY 1 UNIT
54 Lab hours
Corequisite: Concurrent enrollment required or satisfactory completion of PHYS 160. Laboratory and practical experience in physics. Emphasis on measuring techniques, data analysis, and the scientific method. Field trips may be required. (A-F or P/NP) Lab. Transfer: (CSU, UC) General Education: (MJC-GE: A)

PHYS 165—INTRODUCTORY PHYSICS 5 UNITS
54 Lecture hours, 54 Lab hours, 18 Discussion hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete MATH 121 or be eligible for enrollment in MATH 171 as determined by the MJC assessment process. Introduction to physics through the study of laboratory measurement in selected topic areas to include mechanics, wave motion, thermodynamics, electricity and magnetism. Develops the theoretical and experimental foundation for PHYS 101 and PHYS 142. (A-F or P/NP) Lecture/Lab/Discussion. Transfer: (CSU, UC) General Education: (MJC-GE: A)

PHYS 180—CONCEPTUAL PHYSICS: A HANDS-ON APPROACH 4 UNITS
54 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of MATH 90 or qualification by the MJC assessment process. A survey course of selected topics in physical inquiry to include motion, waves, heat, energy, electricity, magnetism and modern physics. Physical theory is explored on a conceptual level with emphasis placed on applying physical principles to everyday phenomena. To include a weekly activity/laboratory session designed to provide students with practical experience in applying physical concepts. (A-F or P/NP) Lecture/Lab. Transfer: (CSU, UC) General Education: (MJC-GE: A)
PLYSO (Physiology)

Dean: Bitan Sanders
Division Office: Science Building, Room 126
Phone: (209) 575-6173
Division website: www.mjc.edu/current/programs/dvsdeps/sme/
Instructors: David Ward, Michele Monlux, Pamela Upton, Robert Droual

PLYSO 101—INTRODUCTORY HUMAN PHYSIOLOGY 5 UNITS
72 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of BIO 116 or BIO 111 or BIO 101 and ANAT 125 and CHEM 143.
Study of body function, organ system integration, communication, and homeostasis at the biochemical, cellular, and system levels. Includes control of osmolarity, protein synthesis and cellular metabolism, cellular communication, neural information processing, blood movement, fluid balance, respiration and digestion, reproduction, sensory perception and control of movement. Intended for students entering the health professions. (A-F or P/NP) Lecture/Lab/Discussion.
Transfer: (CSU, UC) (MJC-GE: A) (CSU-GE: B, B3) (IGETC: 5B, 5C)

PLYSO 103—INTRODUCTION TO NEUROSCIENCE 3 UNITS
54 Lecture hours
Also offered as: PSYCH - 103: Introduction to Neuroscience.
Prerequisite: Satisfactory completion of PSYCH 101.
Introduction to the biological basis of behavior. Emphasis on divisions of the nervous system, neuroanatomy, neuropsychology, psychopharmacology as applied to the understanding of perceptual processes, psychoactive drugs, movement, regulation of hunger and thirst, sexual behavior, sleep, learning and memory, language, emotion, reward and stress, and psychopathology. Appropriate for all students interested in the behavioral and biological sciences. (A-F or P/NP) Lecture.

PLSC (Plant Science)

Dean: Mark A. Anglin
Division Office: Agriculture, Room 100
Phone: (209) 575-6200
Division website: www.mjc.edu/prospective/programs/agents/index.html
Instructors: David Baggett, Mike Morales, Dale Pollard

PLSC 205—FIELD CROPS 3 UNITS
36 Lecture Hours, 54 Lab Hours
Economic importance, adaptation, cultural practices, irrigation, integrated pest management, cost analysis, calendar of operations, and marketing in the production of field crops (including barley, oats, wheat, corn, grain sorghum, alfalfa, rice, dry beans, sugar beets, cotton, and seed crops). Field trips are required. (A-F Only) Transfer: (CSU)

PLSC 215—VEGETABLE CROPS 3 UNITS
36 Lecture Hours, 54 Lab Hours
Vegetable crops common to the area, economic importance, cultural sequence, fertilization, irrigation, cultivation, integrated pest control, harvest and related factors; marketing, cost analysis, risks; environmental relationships including moisture, temperature, soil and weather in the production of vegetable crops. Field trips are required. (A-F Only) Transfer: (CSU, UC)

PLSC 230—FRUIT SCIENCE 3 UNITS
36 Lecture Hours, 54 Lab Hours
Elementary culture of fruit and nut crops including growth and fruiting habits, varieties, characteristics and adaptations; environmental factors influencing local fruit production; pruning and training procedures on local fruit crops. Field trips are required. (A-F Only) Transfer: (CSU, UC)

PLSC 235—PLANT PROPAGATION/PRODUCTION 3 UNITS
Also offered as: EHS - 225
36 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PLSC 200.
Plant propagation and production practices with emphasis on nursery operations including sexual and asexual reproduction, planting, transplanting, fertilizing, plant pest and disease control, structures and site layout. Preparation and use of propagating and planting mediums. Use and maintenance of common tools and equipment. Regulations pertaining to plant production. Field trips are required. (A-F Only) Transfer: (CSU, UC)

PLSC 241—VITICULTURE 3 UNITS
36 Lecture Hours, 54 Lab Hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete NR 200 and satisfactorily complete PLSC 200.
California grape production; study of table and wine grape varieties, uses, adaptations and products; production practices, propagation and planting, training, pruning and irrigation systems; identification and control of grape pests and diseases. Student is required to design a new vineyard and critique an existing operation. Field trips are required. (A-F Only) Transfer: (CSU, UC)

PLSC 250—PLANT NUTRITION AND FERTILIZER 3 UNITS
54 Lecture Hours
An overview of plant nutrition principles in order to understand amendments, fertilizers, their uses, value, application, and relationship to soils and to crops grown in this area. Deficiency symptoms, pH, soil, water and plant tissue testing, and environmental factors and concerns. Field trips are required. (A-F Only) Transfer: (CSU)

PLSC 255—PLANT PEST CONTROL 3 UNITS
36 Lecture Hours, 54 Lab Hours
Study of crop mites and insects, their morphology, identification, life cycles, host and habitat relationships, methods and materials of control. Field trips are not required. (A-F Only) Transfer: (CSU)

PLSC 260—PLANT DISEASE CONTROL 3 UNITS
36 Lecture Hours, 54 Lab Hours
Study of common local crop diseases, their economic importance, identification, life cycles, host and habitat relationships, and methods of control. Field trips might be required. (A-F Only) Transfer: (CSU)

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

PLSC 289—PRUNING 1 UNIT
18 Lecture hours
Course includes all the material of PLSC 287 and an additional component on pruning of deciduous fruits and vines. Care and maintenance of tools and equipment. Pruning techniques, integration, fertilization, and insect control also included. Field trips required. Lecture/Laboratory/Saturday labs. (A-F Only)

CURRICULUM CHANGES “IMPACT” PROOF
INACTIVATED NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW

271
POLSC (Political Science)

Dean (Interim): John Williams
Division Office: Founders Hall 100
Phone: (209) 575-6129
Division website: mjc.edu/prospective/programs/bbss/
Instructors: Steven Miller

POLSC101—AMERICAN POLITICS 3 UNITS
54 Lecture hours
Introduction to United States politics emphasizing the essential institutions, groups, beliefs, behaviors and processes that comprise the American political system at the national, state, and local levels. Special attention to rights and obligations of citizenship.
(A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE-DB) (IGETC: 4H) (AI: Group b)

POLSC 102—THE CONSTITUTION AND RIGHTS OF AMERICANS 3 UNITS
54 Lecture hours
Introduction to U.S. constitutional government emphasizing the principles and problems of a constitutional system; governmental powers and sources of power at the national, state, and local levels. Special emphasis on the role of the courts and the rights and responsibilities of democratic citizenship, including units on racial and sexual discrimination, the rights of the accused, privacy, political participation, and freedom of expression and religion. Special attention to current constitutional problems at the national and state levels.
(A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE-DB) (IGETC: 4H) (AI: Group b)

POLSC 110—INTERNATIONAL RELATIONS 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Introduction to principles and practices of international politics; emphasizing problems of war and peace, foreign policies of major powers, and problems of developing countries; field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) (CC POLSC 14) General Education: (MJC-GE: B) (CSU-GE-DB) (IGETC: 4H)

POLSC 111—WAR & PEACE: FROM LENIN TO AL QAEDA 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Survey of major events and personalities in the history of international politics since 1917. Topics include Origins of WWII, key personalities - Lenin, Stalin, Churchill, Truman, origins and demise of cold war, role of nuclear weapons, and the rise of terrorism. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B) (CSU-GE-DB) (IGETC: 4H)

POLSC 120—CALIFORNIA POLITICS AND PROBLEMS 3 UNITS
54 Lecture hours
Analysis of government institutions, politics, issues and political behavior in California in constitutional, social, economic and cultural perspective. Included are studies of issues confronted by U.S. and California state, county, city and regional governments including political representation, resources and energy, land use and planning, population growth, poverty, education, criminal justice, pollution, budgets and taxation. Special attention to the rights and obligations of citizenship. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE- B) (CSU-GE-DB) (IGETC: 4H) (AI: Group b)

POLSC 130—POLITICAL THEORY 3 UNITS
54 Lecture hours
Studies major political theorists and their analyses of political concepts, including democracy, freedom, authority, equality, and political leadership. Investigates how political theory is practically relevant and connected to current political issues. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE- B) (CSU-GE-DB) (IGETC: 4H)

POLSC 131—AMERICAN POLITICAL THOUGHT 3 Units
54 Lecture hours
Examines American political thought and culture from the European discovery of the New World to the present. Detailed study of the writings of the Puritans, Jefferson, Madison, Harriet Jacobs, Melville, Lincoln, Susan B. Anthony, Boume, Arendt, and others. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE- B) (CSU-GE-DB) (IGETC: 4H)

POLSC 140—COMPARATIVE POLITICS 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101 and satisfactorily complete POLSC 101.
Comparative survey of major totalitarian, authoritarian and democratic political systems. Emphasis on Great Britain, France, Germany, Russia, People's Republic of China, Japan and selected Third World countries. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE- B) (CSU-GE-DB) (IGETC: 4H)

POLSC 195—INTERNSHIP IN POLITICAL SCIENCE DISCUSSION 1 UNIT
18 Lecture hours
Formerly listed as POLSC 195 - Internship in Political Science
Corequisite: Concurrent enrollment in POLSC 196.
Examines political internship experiences of students concurrently enrolled in POLSC 196A or 196B or 196C. Class meetings are for sharing learning experiences, analyzing issues related to public service, and collectively addressing issues associated with the internships. Two completions allowed. (A-F or P/NP) Discussion. Transfer: CSU

POLSC 196A,B,C—INTERNSHIP IN POLITICAL SCIENCE 1,2,3 UNITS
A=54 Lab hours, B=108 Lab hours, C=162 Lab hours
Corequisite: Concurrent enrollment in POLSC 195.
Supervised internship in a federal, state, or local government office, court, or political organization. Two completions allowed. (A-F or P/NP) Lab. Transfer: CSU

PORTG (Portuguese)

Dean: Patrick Bettencourt
Division Office: Founders Hall, Room 200
Phone: (209) 575-6149
Division website: www.mjc.edu/current/programs/divdeps/litlang/

PORTG 51—INTRODUCTION TO PRACTICAL PORTUGUESE 1 2 UNITS
54 Lecture hours
Basic conversational Portuguese. Emphasis on the development of conversational skills rather than reading and writing. Designed for students who need to speak Portuguese in their work or who wish to refresh their Portuguese language background, or who need preparation for PORTG 101—Lecture/Laboratory. (Fall) General Education: (MJC-GE-C)

PSYCH - READ

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED• NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
PORTG 52—INTRODUCTION TO PRACTICAL PORTUGUESE 2 3 UNITS
Recommended for Success: PORTG 51.
A continuation of PORTG 51. Designed for those who need it for their work, travel, or to prepare for PORTG 101. Lecture/Laboratory. (Spring)

PSYCH (Psychology)

Dean (Interim): John Williams
Division Office: Founders Hall 100
Phone: (209) 575-6129
Division website: mjc.edu/prospective/programs/bbss/
Instructors: Shelly Fichtenkort, Rebecca Ganes, Bobby Hutchison, Lee Kooler, Teni Nicoll-Johnson

PSYCH 51—PSYCHOLOGY IN EVERYDAY LIFE 3 UNITS
54 Lecture hours
Recommended for Success: Satisfactory completion of ENGL 49.
Principles of human behavior and personality development and their application to today’s world, including personal and job-related problem solving skills. Lecture. (A-F and P/NP) General Education: (MJC-GE: B)

PSYCH 101—GENERAL PSYCHOLOGY 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to meet the eligibility requirements for ENGL 101.
A study of behavior and personality development. Lecture. (A-F and P/NP) General Education: (MJC-GE: B)

PSYCH 102—RESEARCH METHODS 3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of PSYCH 101
Recommended for Success: Before enrolling in this course, students are strongly advised to complete ENGL 101.
An introductory examination and application of various research methods used by psychologists in order to describe, predict, and explain behavior. Field trips may be required. Lecture. Transfer: (CSU, UC)

PSYCH 103—INTRODUCTION TO NEUROSCIENCE 3 UNITS
54 Lecture hours
Also offered as: PHYSYO - 103: Introduction to Neuroscience
Prerequisite: Satisfactory completion of PSYCH 101
Introduction to the biological basis of behavior. Emphasis on divisions of the nervous system, neuroanatomy, neuropsychology, psychopharmacology as applied to understanding of perceptual processes, psychosocial problems, movement, regulation of hunger and thirst, sexual behavior, sleep, learning and memory, language, emotion, reward and stress, and psychopathology. Appropriate for all students interested in the behavioral and biological sciences. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE-A)(CSU-GE-B2)(IGETC: 5B)

PSYCH 104—SOCIAL PSYCHOLOGY 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PSYCH 101 and to be eligible for ENGL 101.
Study of how individuals affect and are affected by other people in their interaction with one another. The relationship between social behavior and internal processes (attitudes, beliefs, self-concept) will also be examined. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE-B,E)(CSU-GE- E)(IGETC: 4I)

PSYCH 105—ABNORMAL PSYCHOLOGY 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PSYCH 101 and be familiar with the theories of personality, experimental design, introductory information on diagnostic categories, diagnosis and treatment of mental illnesses.
An examination of the broad questions of normality in the context of biological, psychological, sociological, and cultural factors, including major theoretical, diagnostic and treatment approaches. Field trips are required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: B)(CSU-GE: D9)(IGETC: 4I)

PSYCH 110—HUMAN SEXUALITIES 3 UNITS
54 Lecture hours
Study of human sexualities from a biopsychosocial perspective. The intersections of biology, culture, ethnicity, race, social class, sexual orientation and gender as they relate to sexualities will be explored throughout the course. (A-F and P/NP) Lecture. Transfer: (CSU, UC)(CC PSYCH 30) General Education: (MJC-GE: E)(CSU-GE: E)(IGETC: 4I)

PSYCH 111—PSYCHOLOGY OF GENDER 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PSYCH 101.
A survey of various factors in the development of gender identity and gender roles, including psychological, sociological, biological and cultural influences. Field trips may be required. Lecture. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: B)(CSU-GE: D4, D9)(IGETC: 4D, 4I)

PSYCH 118—PHARMACOLOGY OF ABUSED SUBSTANCES 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete HUMSR 118.
An introduction to psychopharmacology and the process of drug addiction. Topics include classification of abused and psychotherapeutic drugs, basic principles of pharmacology, behavioral and physiological effects of drugs, major neurotransmitter systems and how they are influenced by drugs. (A-F or P/NP) Lecture. Transfer: (CSU)

PSYCH 130—PERSONAL ADJUSTMENT 3 UNITS
54 Lecture hours
The study of personal growth and adjustment. Includes discussion of personality, development, interpersonal relationships, stress management, work, and other concerns of individuals in society. Lecture. (A-F or P/NP) Transfer: (CC PSYCH 30) General Education: (MJC-GE: E)(CSU-GE: E)

PSYCH 141—HUMAN LIFESPAN 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PSYCH 101 and meet the eligibility requirements for ENGL 101.

Public Safety
For Public Safety course descriptions, please see EMS (Emergency Medical Services) and FSCI (Fire Science)

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED: NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
### READ (Reading)

**Dean:** Patrick Bettencourt  
**Division Office:** Founders Hall, Room 200  
**Phone:** (209) 575-6149  
**Division website:** [www.mjc.edu/current/programs/divdeps/litlang/](http://www.mjc.edu/current/programs/divdeps/litlang/)

**Instructors:** Christopher Briggs, Dorothy Scully, Janelle Gray, Lawrence Scheg

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ 21</td>
<td>VOCABULARY DEVELOPMENT</td>
<td>3</td>
<td>54 Lecture hours</td>
<td>Course is designed to improve the vocabulary of students who are functioning at the Precollegiate level. (A-F Only) Lecture.</td>
</tr>
<tr>
<td>READ 40</td>
<td>READING COMPREHENSION</td>
<td>3</td>
<td>54 Lecture hours</td>
<td>Provides students the opportunity to improve their reading comprehension of pre-collegiate materials. (A-F Only) Lecture.</td>
</tr>
<tr>
<td>READ 62</td>
<td>COLLEGE VOCABULARY</td>
<td>3</td>
<td>54 Lecture hours</td>
<td>Recommended for Success: Before enrolling in this course, students are strongly advised to complete or assess above READ 82. Development of college-level vocabulary. Use of context clues and structural analysis emphasized. (A-F Only) Lecture.</td>
</tr>
<tr>
<td>READ 82</td>
<td>COLLEGE READING - COMPREHENSION</td>
<td>3</td>
<td>54 Lecture hours</td>
<td>Recommended for Success: Satisfactory completion of READ 40 or qualification by the MJC assessment process. Designed to improve student's comprehension and retention of college level materials. (A-F Only) Lecture.</td>
</tr>
<tr>
<td>READ 184</td>
<td>CRITICAL READING</td>
<td>3</td>
<td>54 Lecture hours</td>
<td>Recommended for Success: Satisfactory completion of READ 82 or recommendation of the reading assessment. Reading for inferred ideas, evaluation of ideas, tone, mood, and style. Discussion of application of reader’s knowledge to reading material. (A-F Only) Lecture.</td>
</tr>
</tbody>
</table>

### REC (Recreation)

**Dean:** William Kaiser  
**Division Office:** PE Office Building, Room 105  
**Phone:** (209) 575-6269  
**Division website:** [www.mjc.edu/athletics](http://www.mjc.edu/athletics)

**Instructor:** Paul Aiello

With increased urbanization, expanded leisure time, and public awareness of the value of recreational activities, trained leaders are needed to organize and administer programs in a variety of settings. Since most jobs in Recreation require a four-year college degree, students in the Recreation program at MJC are encouraged to follow the four-year college transfer pattern and also to complete theoretical and practical recreation classes. Students are also advised to take electives in the fields of art, drama, music, sports, and activities. Considerable flexibility in the Recreation program is allowed in designing an individualized program to strengthen career needs and specialization areas selected by the student.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>REC 110</td>
<td>SOCIAL RECREATION LEADERSHIP</td>
<td>3</td>
<td>54 Lecture hours</td>
<td>Leadership techniques and strategies of recreational activities with an emphasis on the integration of individuals into group programs. Field trips may be required. (A-F or P/NP) Lecture Transfer: (CSU)</td>
</tr>
</tbody>
</table>

### RLES (Real Estate)

**Dean (Interim):** John Williams  
**Division Office:** Founders Hall 100  
**Phone:** (209) 575-6129  
**Division website:** [mjc.edu/prospective/programs/bbss/](http://mjc.edu/prospective/programs/bbss/)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>RLES 380</td>
<td>REAL ESTATE PRINCIPLES</td>
<td>3</td>
<td>54 Lecture hours</td>
<td>Real estate principles and laws in California, including contracts, deeds, land titles, liens, escrows, leases, financing, land descriptions, mandatory disclosures, terminology, ethics, fair housing and licensing. Field trips may be required. Lecture.</td>
</tr>
<tr>
<td>RLES 381</td>
<td>REAL ESTATE PRACTICES</td>
<td>3</td>
<td>54 Lecture hours</td>
<td>Prerequisite: Satisfactory completion of RLES 380. Practices and techniques of broker and salesperson including listing, prospecting, advertising, disclosures, selling, escrow procedures, financing, exchanges, property management and leases, land utilization and development, public relations and professional ethics, and fair housing in real estate business. Field trips may be required. Lecture.</td>
</tr>
<tr>
<td>RLES 382</td>
<td>LEGAL ASPECTS OF REAL ESTATE 1</td>
<td>3</td>
<td>54 Lecture hours</td>
<td>Prerequisite: Satisfactory completion of RLES 381. California real property laws including the principle legal aspects of ownership, acquisition and transfer of real property, legal descriptions, contracts, escrow procedures, forms of trust foreclosure, liens and restrictions, legal instruments. Lecture. Not offered every semester.</td>
</tr>
<tr>
<td>RLES 384</td>
<td>REAL ESTATE FINANCE</td>
<td>3</td>
<td>54 Lecture hours</td>
<td>Prerequisite: Satisfactory completion of RLES 380 or 381. Lending regulations, policies and procedures applicable to financing residential, multi-family, commercial and special purpose properties. Special attention to the money market, sources of funds and FHA and VA loans as factors in property financing. Lecture. Not offered every semester.</td>
</tr>
</tbody>
</table>
RLES 385—REAL ESTATE APPRAISAL, RESIDENTIAL  
3 UNITS  
54 Lecture hours  
Prerequisite: Satisfactory completion of RLES 380  
Examination of appraisal process to determine property value on cost, sales comparison, and income basis. Consideration of neighborhood and site analysis, residential style and functional utility, three approaches to value, reconciliation of value indicators, and Uniform Standards of Professional Practice. Field trips may be required. Lecture.

RLES 392—BASIC ESCROW PROCEDURES  
3 UNITS  
54 Lecture hours  
Prerequisite: Satisfactory completion of RLES 380 or 381.  
Basic escrow elements and practices. Terms, phraseology, and documents. Preparation of instructions and statements and their use, legal descriptions; vesting of title, balancing, debits and credits, loan payoffs and dispensing funds. Lecture. Not offered every semester.

RSCR (Respiratory Care)  
Dean: Maurice McInnerny, EdD  
Division Office: Glacier Hall, Room 165  
Phone: (209) 575-3652  
Division website: www.mjc.edu/alliedhealth  
Instructors: Bonnie Hunt, Philip Labrador

RSCR 220—INTRODUCTION TO RESPIRATORY CARE  
5 UNITS  
72.00 Lecture Hours, 54 Lab Hours  
Prerequisite: Satisfactory completion of CHEM 143.  
Corequisite: Concurrent enrollment in RSCR 230.  
Limitations on Enrollment: Enrollment limited to students admitted to the respiratory care program.  
Covers basic physical principles necessary for the practice of respiratory care to include the following: medical terminology, fundamentals of general bedside patient care skills, underlying physical principles of respiratory care equipment, and indications for the use of oxygen and aerosol therapy and related equipment. Materials fee required. Field trips might be required. (A-F Only) Transfer: (CSU)

RSCR 222—BASIC CARDIOPULMONARY ANATOMY AND PHYSIOLOGY  
3 UNITS  
54 Lecture hours  
Formerly listed as RSCR 202  
Prerequisites: Satisfactory completion of AP 150 or (ANAT 125 and PHYS 101)  
Structure and functions of the pulmonary and cardiovascular systems. Application of laws of gas and fluid physics to the cardiopulmonary system. Field trips may be required. Lecture. (A-F Only) (Fall) Transfer: CSU

RSCR 224—RESPIRATORY CARE THEORY 2  
5 UNITS  
72 Lecture hours, 54 Lab hours  
Formerly listed as RSCR 203  
Prerequisites: Satisfactory completion of RSCR 220.  
Theoretical foundation for basic treatment modalities utilized in respiratory care. Topics covered include: hyper-inflation therapies, chest physical therapy, basic airway care and cardiopulmonary pharmacology. Associated equipment will be covered during scheduled labs. Field trips may be required. Lecture/Laboratory. Materials fee required. (Spring) (A-F Only) (Fall) Transfer: CSU

RSCR 230—CLINICAL 1  
1 UNITS  
54 Lab Hours  
Corequisite: Concurrent enrollment in RSCR 220.  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete AP 150.  
Clinical experience in oxygen therapy, aerosol-humidity therapy and other basic respiratory care modalities used in area hospitals. Field trips are required. (P/NP Only) Transfer: (CSU)

RSCR 232—CLINICAL 2  
3½ UNITS  
183.75 Lab hours  
Formerly listed as RSCR 206  
Prerequisites: Satisfactory completion of RSCR 230.  
Concurrent Enrollment: RSCR 224  
Clinical experience in the various routine respiratory care procedures and the equipment used in area hospitals. Attention is paid to the student performing critical evaluations of current therapy and the application of clinical practice guidelines. Field trips may be required. Two completions allowed. Laboratory. (Fall) (P/NP Only) Transfer: CSU

RSCR 240—ADVANCED CARDIOPULMONARY PHYSIOLOGY  
4 UNITS  
72.00 Lecture Hours, 54 Lab Hours  
Prerequisites: Satisfactory completion of RSCR 222 and RSCR 224.  
Limitations on Enrollment: Enrollment limited to students who are accepted into the Respiratory Care Program.  
Advanced cardiopulmonary physiology and diagnostics for the second-year respiratory care student. Includes advanced arterial blood gas analysis, indices of oxygenation, chest x-ray interpretation, hemodynamic monitoring, laboratory testing, capnography, and ECG interpretation with an emphasis on clinical setting application. Also includes discussion of various pathologies caused by cardiovascular conditions. Field trips might be required. (A-F Only) Transfer: (CSU)

RSCR 242—CRITICAL CARE PROCEDURES  
4½ UNITS  
63.00 Lecture Hours, 54 Lab Hours  
Prerequisite: Satisfactory completion of RSCR 222 and 242.  
Limitations on Enrollment: Enrollment limited to students who are accepted into the Respiratory Care Program.  
Theory and application of critical care procedures for second year respiratory care students. Advanced theory and application of mechanical ventilators, associated pathophysiology and pharmacology, microbiological issues in respiratory care; application of ECG interpretation and chest x-ray interpretation. Field trips are not required. (A-F Only) Transfer: (CSU)

RSCR 244—NEONATAL-PEDIATRIC RESPIRATORY CARE  
2 UNITS  
36 Lecture hours  
Formerly listed as RSCR 214  
Prerequisites: Satisfactory completion of RSCR 240 and 242.  
Introduction to respiratory care in the neonatal patient. Topics include fetal and neonatal development, resuscitation, pathophysiology, and neonatal and pediatric respiratory care procedures. Also open to those holding valid Respiratory Care Practitioner or Registered Nurse license. Field trips may be required. Lecture. (Summer) (A-F Only) Transfer: (CSU)

RSCR 246—CURRENT ISSUES IN RESPIRATORY CARE  
3 UNITS  
54 Lecture Hours, 36 Lab Hours  
Prerequisites: Satisfactory completion of RSCR 240 and 242.  
Limitations on Enrollment: Enrollment limited to students who are admitted to Respiratory Care Program.  
Introduction to specialty areas of respiratory care. Review of pathophysiology of respiratory disease processes and treatment. Includes a comprehensive review to prepare students for state and national examinations. Field trips might be required. (A-F Only) Transfer: (CSU)

RSCR 248—SELF-DIRECTED STUDY  
0½ UNITS  
9.00 Lecture Hours, 5.4 Lab Hours  
Prerequisite: Satisfactory completion of RSCR 242.  
Limitations on Enrollment: Enrollment limited to students admitted to the Respiratory Care Program.  
Preparation for Therapist level clinical simulation exam. Students spend 1.5 hours per week on a self-directed basic completed computerized clinical teaching and testing simulations. Also open to those possessing a valid RCP license. Field trips are not required. (P/NP Only) Transfer: (CSU)

RSCR 250—CLINICAL 3  
3 UNITS  
183.75 Lab hours  
Formerly listed as RSCR 213  
Prerequisites: Satisfactory completion of RSCR 232.  
Concurrent Enrollment: RSCR 240 and 242.  
Clinical experience in the various critical care respiratory procedures and the equipment used for these procedures in various area hospitals. Field trips may be required. Two completions allowed. Laboratory. Materials fee required. (P/NP Only (Spring) Transfer: CSU
RSCR 251—NEONATAL AND PEDIATRIC CLINICAL PRACTICE 1 ½ UNIT
27 Lab hours
Prerequisites: Satisfactory completion of RSCR 242
Concurrent Enrollment: RSCR 244
Introduction to respiratory care clinical practice in perinatal, neonatal and pediatric care. Field trips may be required. Laboratory. (Summer)(P/NP Only) Transfer: CSU

RSCR 252—PHYSICIAN ROUNDS FOR RESPIRATORY CARE ½ UNIT
27 Lab hours
Formerly listed as RSCR 210
Concurrent Enrollment: RSCR 244 and 246.
Opportunity for interaction between physicians and respiratory care students to determine the appropriateness of a respiratory care plan; includes use of computer instruction in formulating adequate care plans and use of respiratory care protocols. Laboratory. (Fall) Transfer: CSU

RSCR 253—NEONATAL AND PEDIATRIC CLINICAL PRACTICE 2 ½ UNIT
27 Lab hours
Prerequisites: Satisfactory completion of RSCR 242
Concurrent Enrollment: RSCR 244
Additional respiratory care clinical practice in perinatal, neonatal and pediatric care. Field trips may be required. Laboratory. (Summer)(P/NP Only) Transfer: CSU

RSCR 255—CLINICAL 4 4½ UNITS
183.75 Lab hours
Formerly listed as RSCR 254
Prerequisites: Satisfactory completion of RSCR 244
Concurrent Enrollment: RSCR 246
Continued clinical experience in critical care units and introduction to clinical care in the neonatal intensive care unit as well as alternative site respiratory care. Field trips may be required. Materials fee required. (Fall) Transfer: CSU

RSCR 257—CLINICAL PRECEPTORSHIP 2½ UNITS
236.25 Lab hours
Formerly listed as RSCR 256
Prerequisites: Satisfactory completion of RSCR 244
Concurrent Enrollment: RSCR 246
Four week clinical preceptorship in which student must demonstrate proficiency in all areas of clinical respiratory care practice. Field trips may be required. Laboratory. (Fall) Transfer: CSU

SIGN (Sign Language)
Dean: Patrick Bettencourt
Division Office: Founders Hall, Room 200
Phone: (209) 575-6149
Division website: www.mjc.edu/current/programs/divdeps/litlang/
Instructors: Barbara Wells

SIGN 125—ASL: BEGINNING COMMUNICATION WITH THE DEAF 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50.
Introduction to American Sign Language, designed to provide basic conversational skill in the language used among Deaf people in the United States. This course is equivalent to the first two years of high school ASL. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE:C)(CSU-GE:C2)(IGETC: 6A)

SIGN 126—ASL: INTERMEDIATE COMMUNICATION WITH THE DEAF 3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of SIGN 125.
Communicating with and interpreting for the Deaf at an intermediate conversational level using American Sign Language. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE:C)(CSU-GE:C2)(IGETC: 3B, 6A)

SIGN 127—ASL: ADVANCED COMMUNICATION WITH THE DEAF 3 UNITS
54 Lecture hours
Prerequisite: Satisfactory completion of SIGN 126.
Extensive development of and practice in American Sign Language for those who would like to interpret for the Deaf or for those want to become professionals working in the Deaf community. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE:C) (CSU-GE:C2) (IGETC:3B, 6A)

SM (Sheet Metal)
Dean: Pedro Mendez
Office: John Muir 258W
Phone: (209) 575-6332
Division website: www.mjc.edu/prospective/programs/teched/sheetmetal/
Instructors: Sonny Gumm

The Vocational Sheet Metal courses teach layout, measurement, forming, and installation as well as the mathematics required for sheet metal fabrication. Curriculum is developed and closely monitored in consultation with local air conditioning and heating contractors.

SM 331—VOCATIONAL SHEET METAL AND INSTALLATION 1 3 UNITS
54 Lecture hours
Formerly listed as SM 31
Tools and machinery used by sheet metal trades. Training in the procedures using patterns, cutting, making seams and riveting metals. Safety in sheet metal shop. Basic mathematical application. Opportunities in the trade. Field trips may be required. Lecture. (A-F or P/NP)

SM 332—VOCATIONAL SHEET METAL AND INSTALLATION 2 3 UNITS
54 Lecture hours
Formerly listed as SM 32
Prerequisite: Satisfactory completion of SM 331
Techniques perfected in turning, boring, raising, forming, crimping, and beading: short method of pattern development. Parallel line and radial line development. Linear and geometric measure. Field trips may be required. Lecture (A-F Only)
SOcio (Sociology)

Dean (Interim): John Williams
Division Office: Founders Hall 100
Phone: (209) 575-6129
Division website: mjc.edu/prospective/programs/bbss/
Instructors: Richard Sweeney, Sandra Woodside

SOcio 101—INTRODUCTION TO SOCIOLOGY 3 UNITS
54 Lecture hours
The study of human social interaction, groups and societies with emphasis upon culture, social differences, institutions and change. Field trips may be required. Lecture. Transfer: (CSU, UC)(CC SOCIO 1) (C-ID SOCI 110) General Education. (MJC-GE: B)(CSU-GE: D0)(IGETC: 4J)

SOcio 102—SOCIAL PROBLEMS IN THE UNITED STATES 3 UNITS
54 Lecture hours
The experiences of caregivers and patients from several ethnic minority groups. The study of contemporary social problems within the American society emphasizing, among other topics, alcohol and drugs, crime and violence, family problems, power, race, and gender inequalities. Construction of possible solutions to social problems will also be discussed. Field trips may be required. Lecture. Transfer: (CSU, UC)(CC SOCIO 2) (C-ID SOCI 115) General Education. (MJC-GE: B)(CSU-GE: D0)(IGETC: 4J)

SOcio 125—SOCIOLOGY OF THE FAMILY 3 UNITS
54 Lecture hours
Comparative and historical treatment of the family. Analysis of kinship and family structure, roles and relationships within the family. Assessment of contemporary society on the family in America. Lecture. Transfer: (CSU, UC)(CC SOCIO 12) (C-ID SOCI 130) General Education. (MJC-GE: B) (CSU-GE: D0)(IGETC: 4J)

SOcio 131—SOCIOLOGY OF MEDICINE: CROSS-CULTURAL PERSPECTIVES 3 UNITS
54 Lecture hours
The experiences of caregivers and patients from several ethnic minority groups (Hispanic, African American and Southeast Asian) provide access to an understanding of some of the meanings and traditions of health in the U.S. Definitions of health and strategies of healing as well as the distribution of illness in our stratified, multicultural society are examined. The influence of Western biomedicine, its network of roles and relationships and the effects of economics and bioethics on health care delivery are evaluated. Field trips may be required. Lecture. Transfer: (CSU, UC). General Education. (MJC-GE: B)

SOcio 150—ETHNICITY AND CULTURE IN AMERICA 3 UNITS
54 Lecture hours
A multidisciplinary study of ethnic and racial groups in the United States including Asian-Americans, African-Americans, Hispanics, among others. Emphasizes emergence, change, marginality, and integration of major ethnic groups in the United States. Field trips may be required. Lecture. Transfer: (CSU, UC)(CC SOCIO 5) (C-ID SOCI 150) General Education. (MJC-GE: B) (CSU-GE: D0, D3)(IGETC: 4J)

SOcio 154—AFRICAN-AMERICAN CULTURES AND COMMUNITIES 3 UNITS
54 Lecture hours
A sociological exploration of the social and historical forces shaping contemporary African-American experiences and their multiple statuses in American society. Effects of stratification, conflict and change as well as the historical and current roles of the family within dynamic communities are emphasized. Lecture. Transfer: (CSU, UC) General Education. (MJC-GE: B)(CSU-GE: D0, D3) (IGETC: 4J)

SOcio 156—MEXICAN CULTURE IN THE UNITED STATES 3 UNITS
54 Lecture hours

SOcsc (Social Science)

Dean (Interim): John Williams
Division Office: Founders Hall 100
Phone: (209) 575-6129
Division website: mjc.edu/prospective/programs/bbss/

SOcsc 58—STUDENT LEADERSHIP DEVELOPMENT 2 UNITS
18 Lecture hours, 54 Lab hours
Theory and practice of leadership. Prepares students for productive involvement in community service, college activities, and civic governance. Designed especially, but not exclusively, for students participating in student government and club activities. Field trips may be required. Two completions allowed. Lecture/Laboratory. MJC Activities. Transfer: (CC GUIDE 115)

SOcsc 105—WOMEN’S STUDIES 3 UNITS
54 Lecture Hours,
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 101.
Using a multidisciplinary approach, this course explores political, economic, social, cultural, and historical issues from a feminist and global perspective. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education. (MJC-GE: B) (CSU-GE: D4) (IGETC: 4D, 4J)

SOcsc 109—INTRODUCTION TO EDUCATION-PRACTICUM IN TUTORING 3 UNITS
54 Lecture hours
Orientation to the teaching profession. Designed for prospective elementary, secondary, or college teachers but open to all. Students are required to observe in an appropriate educational setting. Partially meets field experience requirement for teaching credential program at CSU Stanislaus. Fingerprint Clearance and TB Clearance is required.

SOcsc 110—INTRODUCTION TO EDUCATION 3 UNITS
54 Lecture hours
Orientation to the teaching profession. Designed for prospective elementary, secondary or college teachers but open to all students. Students are required to observe and participate in community classrooms. Meets field experience requirements for teaching credential program. Fingerprint clearance and TB clearance is required. Lecture. Transfer: (CSU, UC)(CC EDUC 12) General Education. (MJC-GE: B)

SOcsc 120A, 120B, 120C—COMPUTER APPLICATIONS IN THE SOCIAL SCIENCES 1,2,3 UNITS
A=154 Lecture hours, B= 18 Lecture hours, 54 Lab hours, C= 36 Lecture hours, 108 Lab hours
Application of computers to social sciences activities. Writing, research, data collection, simulations, survey and laboratory research. Field trips may be required. May be repeated to six units maximum. Lecture or Laboratory. Transfer: CSU

SOcsc 154—MOVIES WITH A MESSAGE 3 UNITS
54 Lecture hours
Also offered as FILM 154
A thematic film course aimed at using the medium of film to broaden the awareness of current societal and global issues, focusing on different topics semester to semester. Selected sequences of feature films, documentaries, unusual foreign and domestic releases will explore how filmmakers depict aspects of history, culture, religion, race, gender, class, ideology and other issues in a global perspective. Course will cover related elements of film style and theory, such as the relationship of subject to style, form and function. Field trips may be required. Lecture. Transfer: (CSU, UC) General Education. (MJC-GE: C)(CSU-GE:C1)

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED: NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
SPCOM - SPELL

SPAN (Spanish)

Dean: Patrick Bettecourt
Division Office: Founders Hall, Room 200
Phone: (209) 575-6149
Division website: www.mjc.edu/current/programs/divdeps/litlang/
Instructors: Laura Manzo, Marcos Contreras, PhD; Mananne Franco, PhD

SPAN 45 A, B, C, X — PRACTICAL SPANISH FOR THE PROFESSIONS 0.5 - 3 UNITS

For the professions. Contributes to the completion of the Professions Transfer and/or the Interdepartmental General Education Transfer Block. (CSU-GE: B4) (IGETC: 3B, 6A)

SPAN 45 B — PRACTICAL SPANISH FOR THE PROFESSIONS 1 UNITS

54 Lecture hours

Slow-paced, non-transferable course designed for people who have never studied a foreign language before, especially Spanish. Basic Spanish grammar and pronunciation. Field trips may be required. (A-F or P/NP) Lecture: Transfer: (CSU, UC) General Education: (MJC-GE:C) (CSU-GE:C2) (IGETC:6A)

SPAN 101 — SPANISH 1 5 UNITS

90 Lecture hours

Fundamentals of spoken and written Spanish. Equivalent to the satisfactory completion of two years of high school Spanish. Field trips may be required. (A-F or P/NP) Lecture: Transfer: (CSU, UC) General Education: (MJC-GE:C) (CSU-GE:C2) (IGETC:6A)

SPAN 102 — SPANISH 2 5 UNITS

90 Lecture hours

Prerequisite: Satisfactory completion of SPAN 101.

Continuation of SPAN 101. Emphasis on preterite and imperfect tenses of the indicative mood. Equivalents to the satisfactory completion of three years of high school Spanish. Lecture: (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE:C) (CSU-GE:C2) (IGETC:3B, 6A)

SPAN 103 — SPANISH 3 5 UNITS

90 Lecture hours

Prerequisite: Satisfactory completion of SPAN 102.

Continuation of Spanish 102. Includes Spanish grammar, conversation, reading and composition. Also includes reading and discussion in Spanish of selections from literary works of Spanish and Latin American writers. Equivalent to the satisfactory completion of four years of high school Spanish. Lecture: (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE:C) (CSU-GE:C2) (IGETC:3B, 6A)

SPAN 104 — SPANISH 4 5 UNITS

90 Lecture hours

Prerequisite: Satisfactory completion of SPAN 103.

Review and expansion of grammatical structures covered in Spanish 101-103. Includes a review of the uses of the subjunctive and the reading and discussion of literary works of Spanish and Latin American writers. (A-F or P/NP) Field trips may be required. Lecture: Transfer: (CSU, UC) General Education: (MJC-GE:C) (CSU-GE:C2) (IGETC:3B, 6A)

SPAN 109 — SPANISH FOR SPANISH SPEAKERS 1 5 UNITS

90 Lecture hours

Formerly listed as SPAN 109 - Spanish for Spanish Speakers: Fundamentals. Recommended for Success: Before enrolling in this course, students are strongly advised to understand and be able to communicate in Spanish with near native fluency, but with some formal academic study in the language.

The first of two courses intended for Native or Heritage Spanish speakers who already speak, read and write in Spanish at varying levels and with some academic study in the language. This course reviews major elements of Spanish grammar and focuses on improving oral and written communication skills. Students expand on their own experiences and explore other Spanish Speaking cultures through the study of selected readings.

Equivalent to the satisfactory completion of two years high school Spanish. Taught in Spanish. Field trips may be required. (A-F or P/NP) Lecture: Transfer: (CSU, UC) General Education: (MJC-GE:C) (CSU-GE:C2)

SPAN 110 — SPANISH FOR SPANISH SPEAKERS 2 5 UNITS

90 Lecture hours

Prerequisite: Satisfactory completion of SPAN 109.

A continuation of SPAN 109. This course is intended for Spanish-speaking students who seek to further improve their oral and written communication skills in standard Spanish through continued grammar review, vocabulary expansion and composition. Students will analyze and discuss topics about the diverse cultures of the Spanish speaking world through selected readings. Equivalent to the satisfactory completion of three years of high school Spanish. Taught in Spanish. Field trips may be required. (A-F or P/NP) Lecture: Transfer: (CSU, UC) General Education: (MJC-GE:C) (CSU-GE:C2) (IGETC:6A)

SPAN 112 — INTRODUCTION TO CHICANO/A LITERATURE 3 UNITS

54 Lecture hours

Prerequisite: Satisfactory completion of SPAN 104 or SPAN 110.

Overview of the historical development and current trends in Chicano/a literature, taught in Spanish. Field trips may be required. (A-F or P/NP) Lecture: Transfer: (CSU, UC) General Education: (MJC-GE:C) (CSU-GE:C2) (IGETC:3B, 6A)

SPAN 173 — SURVEY OF LATIN AMERICAN LITERATURE 3 UNITS

54 Lecture hours

Prerequisite: Satisfactory completion of SPAN 104 or SPAN 110.

Introduction to Latin American literature from the Pre-Colombian Period to the present, a literary survey of major works from different literary movements and from various genres such as poetry, short story, essay, drama, and the novel. Taught in Spanish. Field trips may be required. (A-F or P/NP) Lecture: Transfer: (CSU, UC) General Education: (MJC-GE:C) (CSU-GE:C2) (IGETC:3B, 6A)

CURRICULUM CHANGES "IMPACT" PROOF

INACTIVATED - NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
The Speech Communication Program at Modesto Junior College offers a variety of courses which incorporate both theory and performance instruction. These include public speaking, argumentation and debate, organizational communication, intercultural and interpersonal communication, contest speaking and forensics competition which includes debate and individual events. The MJC Forensics Team has captured a number of state and national championships. Most courses are available to students in both day and evening hours.

SPCOM 100—FUNDAMENTALS OF PUBLIC SPEAKING 3 UNITS
54 Lecture hours

SPCOM 101—VOICE AND ARTICULATION 3 UNITS
54 Lecture hours
Formerly listed as: Basic Voice and Articulation
Also offered as: RATV 101 and THEIR 101
Training program in basic voice and articulation. Emphasis on critical listening, self-analysis and self-improvement in tone production and control, voice quality, articulation and pronunciation. Introduction to the International Phonetic Alphabet. This is not a class for persons with a major speech or language delay or disorder. (A-F or P/NP) Lecture. Transfer: (CSU, UC)

SPCOM 102—INTRODUCTION TO HUMAN COMMUNICATION 3 UNITS
54 Lecture hours
The study of human communication including verbal, nonverbal and listening skills. Effective oral participation in interpersonal contexts; group discussions, and individual presentations in public settings. Lecture. (A-F or P/NP) Transfer: (CSU, UC)(CC SPCOM 4) General Education: (MJC-GE: D2)(CSU-GE: A1)(IGETC: 1C)

SPCOM 103—INTERPERSONAL COMMUNICATION 3 UNITS
54 Lecture hours
Principles of interpersonal communication including perceptual, verbal and nonverbal elements. The study of theory, research findings, concepts and skills in interpersonal relationships as applied to various interactions, such as the male/female relationship, the family, and the workplace. (A-F or P/NP) Lecture. Transfer: (CSU, UC) (C-ID COMM 130) General Education: (MJC-GE-B)(CSU-GE:D7)(IGETC: 4G)

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

SPCOM 105—FORENSICS DEBATE 2 UNITS
18 Lecture hours, 54 Lab hours
Formerly listed as: SPCOM - 105: Forensics Workshop
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete SPCOM 107.
Principles of debate applied to preparation for participation as a judge and/or competitor in competitive debate. Students will prepare to participate in intercollegiate forensics. Competitive events include parliamentary, Lincoln/Douglas and policy debate. (A-F or P/NP) Lecture /Lab MJC Activities. Transfer: (CSU) (CC SPCOM 7)

CURRICULUM CHANGES “IMPACT” PROOF
INACTIVATED - NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW

SPCOM 106—GROUP & ORGANIZATIONAL COMMUNICATION 3 UNITS
54 Lecture hours
Formerly listed as SPCOM 106 - Organizational Communication
Also offered as SPOPR 106
Communication within and between groups and organizations while enhancing relevant individual communication skills. Emphasis on communication and organizational theory as basis for focus on such communication processes as interviewing, task-oriented discussion, problem solving, leadership, conflict resolution and negotiation, communication climate, and organizational culture. (A-F or P/NP) Lecture. Transfer: (CSU - C-ID COMM 140) (CC SPCOM 109) General Education: (MJC-GE: D2)

SPCOM 107—INTRODUCTION TO DEBATE 3 UNITS
54 Lecture hours
Argumentation principles and the debate format. Emphasis on case construction, methods of attack and defense, communication strategies, and various forms of debate. Field trips may be required. (A-F or P/NP) Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: D2)(CSU-GE: A3)

SPCOM 109—WOMEN IN MANAGEMENT 3 UNITS
54 Lecture hours
Formerly listed as SPCOM 109 - Communication and Leadership Skills for Women in Management Communication and leadership skills for effective business management. Emphasis on the women’s movement into management positions, effective communication strategies in organizations, building teams, supervising employees, interpersonal skills, assertiveness training and decision-making skills. (A-F or P/NP) Lecture. Transfer: (CSU)

SPCOM 110—PERSUASION 3 UNITS
54 Lecture hours
Development of abilities to plan and deliver persuasive presentations through a combination of methods involving the study of “real” communicative events; i.e., trials, sales presentations, political campaigns, sermons, etc., and the preparation and presentation of own works. Survey of recent research in attitude change and persuasive communication. Field trips may be required. Lecture. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: D2)(CSU-GE: A1)(IGETC: 1C)

SPCOM 115—FORENSICS PLATFORM SPEECHES 2 UNITS
18 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete SPCOM 100. Principles of applied speech communication through preparation for participation in competitive speech performances. Students will prepare to participate in or judge platform events. Competitive events include informative speaking, persuasive speaking, communication analysis, speech to entertain, and after dinner speaking. (A-F or P/NP) Lecture /Lab Transfer: (CSU) General Education: MJC Activities.

SPCOM 120—ORAL READING / INTERPRETATION 3 UNITS
54 Lecture Hours, Skills in oral interpretation of literature, choice of material, involvement with material; communication of author’s thought, emotion and language; expanded knowledge of literature and literary forms. Credit given for either THEIR 120 or SPCOM 120, but not both. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C)(CSU-GE: C1)

SPCOM 122—INTRODUCTION TO READERS’ THEATRE 3 UNITS
54 Lecture hours
Also offered as: THEIR - 122
Study of oral interpretation principles as they apply to group and choral reading. Emphasis will be placed upon the preparation and performance of Readers’ Theatre productions. Students will be provided with the necessary theory, practice, and criticism to develop skills for organization and oral presentation of Readers’ Theatre materials. Lecture. Field trips may be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE:C)(CSU-GE: C1)

SPCOM 123—STOR YTELLING 3 UNITS
54 Lecture Hours, Also offered as: THEIR - 123
Introduction to the art of storytelling focusing on the preparation and presentation of literature. Emphasis is placed upon selection of materials, analysis, preparation, and presentation of various genres of stories. Designed to help develop the adult reader’s knowledge, critical ability and appreciation of literature; as well as critical listening of others sharing literature. Field trips might be required. (A-F or P/NP) Transfer: (CSU) General Education: (MJC-GE: C)(CSU-GE: C1)
SPCOM 124 — ADVANCED READERS’ THEATRE 3 UNITS
Also offered as: THETR - 124; Advanced Readers’ Theatre
54 Lecture Hours,
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete SPCOM 122 and satisfactorily complete THETR 122.
Continued development of the construction and direction of Readers’ Theatre performances suitable for public presentation. Emphasis on analysis of reading materials and helping others enhance communication skills through vocal control and physical expression. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C1)

SPCOM 125 — FORENSICS INTERPRETATION EVENTS 2 UNITS
18 Lecture hours, 54 Lab hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete SPCOM 120.
Principles of applied speech communication through preparation for participation in competitive interpretation of literature performances. Students will prepare to participate in or judge interpretation events. Competitive events include prose, poetry, drama, duo, and oral interpretation plus readers theatre. (A-F or P/NP) Lecture /Lab Transfer: (CSU-UC) (CC SPCOM 5) General Education: (MJC-GE: B) (CSU-GE:D3, D7) (IGETC: 4C, 4G)

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

STSK 25 — STUDENT SUCCESS STRATEGIES 1 UNIT
18 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and satisfactorily complete READ 82.
Introduction to educational, psychological, and social factors necessary for college success. Topics include: goal setting, time management, note-taking, textbook reading, test-taking skills, memorization, concentration, motivation, writing and speaking, critical and creative thinking, learning styles, use of technology, diversity, health, relationships, finances, educational planning and career development. Acquaints students with the college, its curriculum, facilities, services, regulations, programs, degree and transfer requirements. Field trips may be required. (A-F Only) Lecture. MJC Guidance. Transfer: (CC GUIDE 100)

SUPR 106 — GROUP & ORGANIZATIONAL COMMUNICATION 3 UNITS
54 Lecture hours
Formerly listed as SUPR 106 - Organizational Communication
Also offered as SPCOM 106.
Communication within and between groups and organizations while enhancing relevant individual communication skills. Emphasis on communication and organizational theory as basis for focus on such communication processes as interviewing, task-oriented discussion, problem solving, leadership, conflict resolution and negotiation, communication climate, and organizational culture. (A-F or P/NP) Lecture. Transfer: CSU General Education: (MJC-GE: D2)

STSK (Study Skills/Counseling)
Dean: Lorena Dom
Division Office: Student Services Building, Room 226
Phone: (209) 575-6080
Division website: www.mjc.edu/prospective/getting_started/advising/index.html
Instructors: Mary Silva, Theresa Ballance

STSK 25 — STUDENT SUCCESS STRATEGIES 1 UNIT
18 Lecture hours
Designed to increase the student’s success in college and facilitate the transition to the workplace and other college courses. Practical emphasis on goal setting, time management, study skills and interpersonal communication. This class does not meet guidance requirements for graduation. (A-F Only) Lecture /Discussion.

STSK 78 — COLLEGE STUDY SKILLS 3 UNITS
54 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and satisfactorily complete READ 82.
Introduction to educational, psychological, and social factors necessary for college success. Topics include: goal setting, time management, note-taking, textbook reading, test-taking skills, memorization, concentration, motivation, writing and speaking, critical and creative thinking, learning styles, use of technology, diversity, health, relationships, finances, educational planning and career development. Acquaints students with the college, its curriculum, facilities, services, regulations, programs, degree and transfer requirements. Field trips may be required. (A-F Only) Lecture. MJC Guidance. Transfer: (CC GUIDE 100)

SUPR (Supervisory Management)
Dean (Interim): John Williams
Division Office: Founders Hall 100
Phone: (209) 575-6129
Division website: mjcc.edu/prospective/programs/bbss/

STSK 25 — STUDENT SUCCESS STRATEGIES 1 UNIT
18 Lecture hours
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete ENGL 50 and satisfactorily complete READ 82.
Introduction to educational, psychological, and social factors necessary for college success. Topics include: goal setting, time management, note-taking, textbook reading, test-taking skills, memorization, concentration, motivation, writing and speaking, critical and creative thinking, learning styles, use of technology, diversity, health, relationships, finances, educational planning and career development. Acquaints students with the college, its curriculum, facilities, services, regulations, programs, degree and transfer requirements. Field trips may be required. (A-F Only) Lecture. MJC Guidance. Transfer: (CC GUIDE 100)

SUPR 106 — GROUP & ORGANIZATIONAL COMMUNICATION 3 UNITS
54 Lecture hours
Formerly listed as SUPR 106 - Organizational Communication
Also offered as SPCOM 106.
Communication within and between groups and organizations while enhancing relevant individual communication skills. Emphasis on communication and organizational theory as basis for focus on such communication processes as interviewing, task-oriented discussion, problem solving, leadership, conflict resolution and negotiation, communication climate, and organizational culture. (A-F or P/NP) Lecture. Transfer: CSU General Education: (MJC-GE: D2)

SUPR 122 — ADVANCED READERS' THEATRE 3 UNITS
54 Lecture hours
Also offered as AGGE 122.
Experiments with and develops the student’s own expressive voice and acting skills. Requires a focus on specific character portrayals. Field trips are not required. (A-F or P/NP)

SUPR 124 — ADVANCED READERS' THEATRE 3 UNITS
54 Lecture hours
Also offered as AGGE 124.
Experiments with and develops the student’s own expressive voice and acting skills. Requires a focus on specific character portrayals. Field trips are not required. (A-F or P/NP)

SUPR 145 — PARLIAMENTARY PROCEDURE 1 UNIT
54 Lecture hours
Also offered as AGGE 145

SUPR 351 — ELEMENTS OF SUPERVISION 3 UNITS
54 Lecture hours
Nature and function of supervisor’s role in business, industry and government. The skills and techniques of effective management will be examined and applied in terms of attaining maximum results through the cooperative efforts of others. Lecture.

SUPR 364 — TOTAL QUALITY MANAGEMENT 3 UNITS
54 Lecture Hours,
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete SUPR 351 or satisfactorily complete BUSAD 240.
Introduction to W. Edward Deming’s philosophy of Total Quality Management and its implications for improving the competitiveness of American business in the international economy. A variety of related management topics is also presented. Field trips are not required. (A-F or P/NP)

SPEL 31 — BASIC SPELLING AND PHONICS 3 UNITS
54 Lecture hours
Designed for non-native speakers to improve reading and spelling. Emphasis on sound-symbol relationships in English and phonics rules. Discrimination between words which are similar in either spelling or sound. (A-F Only) Lecture.

SPEL 32 — SPELLING AND PRONUNCIATION 3 UNITS
54 Lecture hours
Designed to improve spelling and pronunciation skills by introducing and using the phonetic patterns of English. (A-F Only) Lecture.

SPELL (Spelling)
Dean: Patrick Bettencourt
Division Office: Founders Hall, Room 200
Phone: (209) 575-6149
Division website: www.mjc.edu/current/programs/divdeps/litlang/

SPELL 31 — BASIC SPELLING AND PHONICS 3 UNITS
54 Lecture hours
Designed for non-native speakers to improve reading and spelling. Emphasis on sound-symbol relationships in English and phonics rules. Discrimination between words which are similar in either spelling or sound. (A-F Only) Lecture.

SPELL 32 — SPELLING AND PRONUNCIATION 3 UNITS
54 Lecture hours
Designed to improve spelling and pronunciation skills by introducing and using the phonetic patterns of English. (A-F Only) Lecture.
THETR (Theatre)

Dean: Michael Sundquist  
Division Office: Performing and Media Arts Center, Room 205  
Phone: (209) 575-6081  
Division website: www.mjc.edu/arts  
Instructors: Lori Bryhni, Lynette Borrelli, Michael Lynch

THETR 101 — VOICE AND ARTICULATION  3 UNITS  
54 Lecture Hours  
Formerly listed as Basic Voice and Articulation  
Also offered as RATV 101 and SPCOM 101  
Teaching program in basic voice and articulation. Emphasis on critical listening, self-analysis and self-improvement in tone production and control, voice quality, articulation and pronunciation. Introduction to the International Phonetic Alphabet. This is not a class for persons with a major speech or language disability or disorder. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C1, IGETC: 3A)

THETR 102 — WORLD THEATRE  2 UNITS  
45 Lecture Hours, 27 Lab Hours  
Survey of world theatre and its development as an art form through social, political and cultural contexts. Investigation of cultural traditions and styles, values, aesthetics will be explored. Field trips required. Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C1, IGETC: 3A)

THETR 103 — DANCE REPERTORY REHEARSAL AND PERFORMANCE  2 UNITS  
108 Lab hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 192. Preparation and presentation of a modern/contemporary dance performance for public viewing. Four completions allowed. Lecture/Lab. (A-F or P/NP) MJC Activities. Transfer: (CSU, UC)

THETR 105 — INTRODUCTION TO STAGECRAFT  3 UNITS  
45 Lecture Hours, 27 Lab Hours  
An introduction to technical theatre and the creation of scenic elements. Includes basic concepts of design, painting techniques, set construction, set movement, prop construction, backstage organization, and career possibilities. May include stage management, lighting, and/or sound techniques. Lecture, reading, projects, and practical experiences. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC: Activities)

THETR 120 — ORAL READING / INTERPRETATION  3 UNITS  
54 Lecture Hours  
Also offered as: SPCOM - 120: Oral Reading / Interpretation  
Skills in oral interpretation of literature; choice of material, involvement with material, communication of author's thought, emotion and language, expanded knowledge of literature and literary forms. Credit given for either THETR 120 or SPCOM 120, but not both. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C1)

THETR 122 — INTRODUCTION TO READERS’ THEATRE  3 UNITS  
Study of oral interpretation principles as they apply to group and choral reading. Emphasis will be placed upon the preparation and performance of Readers' Theatre productions. Students will be provided with the necessary theory, practice and criticism to develop skills for organization and oral presentation of Readers' Theatre materials. Field trips might be required. (A-F or P/NP) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C1)

THETR 123 — STORYTELLING  3 UNITS  
54 Lecture hours  
Formerly listed as SPCOM 123 - Storytelling: The Interpretation Of Children's Literature  
Also offered as SPCOM 123  
Introduction to the history of storytelling and the techniques of critical listening, to preparation and presentation of literature. Emphasis on sources, selection of materials, analysis, preparation and presentation of prose, verse, and drama. Designed to develop the adult reader's knowledge, critical ability, and appreciation of literature. Field trips may be required. Lecture. (A-F or P/NP) Transfer: CU General Education: (MJC-GE: C)(CSU-GE: C1)

THETR 124 — ADVANCED READERS’ THEATRE  3 UNITS  
54 Lecture Hours  
Recommended for Success: Satisfactory completion of (SPCOM 120 or 122) or (THETR 120 or 122).  
Also offered as SPCOM 124  
Continued development of the construction and direction of Readers’ Theatre performances suitable for public presentation. Emphasis on analysis of reading materials and helping others enhance communication skills through vocal control and physical expression. Field trips may be required. Lecture. Transfer: (CSU, UC) General Education: (MJC-GE: C)(CSU-GE: C1)

THETR 129 — JAZZ 2  1 UNITS  
54 Lab hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 186 or PEC 126. Intermediate technique of Jazz Dance with explorations into contemporary derivations of jazz. Emphasis on technical style of the form and the interrelationship of music and movement. Four completions allowed. Field trips are not required. (A-F or P/NP) Transfer: (CSU, UC) Graduation: (MJC Activities)

THETR 131 — FUNDAMENTALS OF CHOREOGRAPHY  1 UNITS  
18 Lecture hours, 54 Lab hours  
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 185 or satisfactorily complete PEC 122. Introduction to the creative process of composing dance. Compositional components will be explored, crafted, and aesthetically analyzed. The elements of dance and performance qualities will be explored through technical practice, improvisation, and compositional studies. Four completions allowed. Field trips may be required. (A-F or P/NP) Lecture/Lab. MJC Activities. Transfer: (CSU, UC)

THETR 150 — ELEMENTS OF PLAYWRITING  3 UNITS  
54 Lecture hours  
Recommended for Success: Satisfactory completion of ENGL 101 & THETR 100. Introduction to the writing of dramatic scripts for the stage, culminating in a staged reading of completed drafts with actors before an audience. Field trips required. Two completions allowed. Lecture/Laboratory. Transfer: (CSU General Education: (MJC-GE: C)CSU-GE: C1, C2)

THETR 156 — REHEARSAL AND PERFORMANCE IN COMEDY  2 UNITS  
108 Lab hours  
Limitations on Enrollment: Enrollment limited to students who successfully pass audition process. Participation as actors in a fully supported theatre production. This course focuses on ensemble performance techniques that are essential for a comedic play production. Participation in rehearsals and public performances is required. Four completions allowed. Field trips may be required. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)

THETR 157 — REHEARSAL AND PERFORMANCE IN DRAMA  2 UNITS  
108 Lab hours  
Limitations on Enrollment: Enrollment limited to students who successfully pass audition process. Participation as actors in a fully supported theatre production. This course focuses on individual and ensemble performance techniques that are essential for a modern dramatic, or tragic play production. Participation in rehearsals and public performances is required. Four completions allowed. Field trips may be required. (A-F Only) Lab. MJC Activities. Transfer: (CSU, UC)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Hours</th>
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<tbody>
<tr>
<td>THETR 158</td>
<td>REHEARSAL AND PERFORMANCE IN CLASSICAL THEATRE</td>
<td>2</td>
<td>108</td>
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<td>Limitations on Enrollment: Enrollment limited to students who successfully pass audition process. Students participate as actors in a fully supported theatre production. Focuses on individual and ensemble performance techniques that are essential for a classical play production. Participation in rehearsals and public performance is required.</td>
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<td>THETR 159</td>
<td>REHEARSAL AND PERFORMANCE IN MUSICAL THEATRE</td>
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<td>108</td>
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<td>Limitations on Enrollment: Enrollment limited to students who successfully pass audition process. Students participate as actors, singers, dancers in a fully supported musical theatre production. This course focuses on individual and ensemble performance techniques that are essential for a musical or opera production. Participation in rehearsals and performances is required.</td>
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<td>THETR 160</td>
<td>FUNDAMENTALS OF ACTING</td>
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<td>45 Lecture Hours, 27 Lab Hours</td>
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<td>Prepares the student to apply basic acting theory to performance. Develops the skills of interpretation of drama through acting. Emphasis on skills for performance: memorization, stage movement, vocal production, and interpretation of text. Field trips might be required.</td>
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<td>THETR 161</td>
<td>INTERMEDIATE ACTING</td>
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<td>45 Lecture Hours, 27 Lab Hours</td>
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<td>Prerequisite: Satisfactory completion of THETR 160. This course follows Acting I (Fundamentals of Acting) and continues the exploration of theories and techniques used in preparation for the interpretation of drama through acting. The emphasis will be placed on deepening the understanding of the acting process through character analysis, monologues, and scenes. The work in class will be presented at the end of the semester in a culminating final public performance. Field trips might be required.</td>
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<td>THETR 164</td>
<td>IMPROVISATIONAL ACTING</td>
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<td>45 Lecture hours, 27 Lab hours</td>
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<td>Intensive study of the basic techniques of theatre games and improvisational acting with specific concentration on improvisational theatre formats. Course will culminate in a public improvisational performance. May be completed up to 3 times. Field trips may be required.</td>
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<td>THETR 165</td>
<td>HISTORY OF THE AMERICAN MUSICAL THEATRE</td>
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<td>54 Lecture hours</td>
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<td>The history of the American musical theatre: the role of the performer, director, music director, book writer, composer, lyricist, choreographer, producer, designer, and audience. Survey of the origins of music theatre beginning with The Black Crook (1866) through the present, its development as an art form, and its relationship to other art forms and the audience. Attendance at musical theatre productions required. Lecture. Tickets fee is required. (P/NP Only) Transfer: (CSU, UC) General Education: (MJC-GE: C) (CSU-GE: C1)</td>
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<td>THETR 170</td>
<td>X,A—HIP HOP</td>
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<td>X= 13.13 Lecture hours, 13.12 Lab hours, A= 4.38 Lecture hours, 13.12 Lab hours</td>
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<td>Also listed as PEC 120X, A</td>
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<td>Fundamental skills of hip hop dance derived from the current dance vernacular and culture. Dance movement education, exploration, and recreation. May be completed up to 4 times.</td>
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<td>THETR 174</td>
<td>STAGE MAKEUP</td>
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<td>45 Lecture Hours, 27 Lab Hours</td>
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<td>Instruction and practice in a lecture/lab setting in all phases of makeup specifically designed for theatrical use. Materials fee required. Four completions allowed. Field trips are not required. Transfer: (CSU, UC) Graduation: (MJC-GE: Activities)</td>
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<td>THETR 175</td>
<td>STAGE COSTUMING</td>
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<td>45 Lecture Hours, 27 Lab Hours</td>
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<td>Costume history, design, and basic construction techniques as an introduction to basic theatrical costumes. Fabrics and their various uses will be investigated. Field trips may be required. Transfer: (CSU, UC) General Education: (MJC-GE: Activities)</td>
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<td>THETR 177</td>
<td>BALLET 2</td>
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<td>54 Lecture hours, Also offered as: PEC - 127 Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 133 or THETR 189. Intermediate level ballet technique and terminology. Students are required to have appropriate dance shoes and dance attire. Four completions allowed. Field trips might be required.</td>
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<td>THETR 178</td>
<td>INTRODUCTION TO SCENERY DESIGN</td>
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<td>27 Lab hours, Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 100. Introduction to the art and practice of scenery design for the stage. History, functions and process of scene design, choosing color and texture, and the importance of lighting. Practical application will include scene painting and model building. Field trips may be required. Transfer: (CSU, UC)</td>
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<td>THETR 181</td>
<td>JAZZ 2</td>
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<td>Also offered as: PEC - 129</td>
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<td>54 Lab Hours, Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 188 or PEC 126. Intermediate technique of Jazz Dance with explorations into contemporary derivations of jazz. Emphasis on technical style of the form and the relationship of music and movement. Four completions allowed. Field trips are not required. Transfer: (CSU, UC) Graduation: (MJC-GE: Activities)</td>
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<td>THETR 182</td>
<td>PRACTICAL STAGE LIGHTING</td>
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<td>45 Lecture hours, 27 Lab Hours</td>
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<td>Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 100. An introduction to the art and practice of lighting design for the stage. Lectures will include: the use and control of stage lighting instruments, choosing color, basic electricity, the physical and psychological properties of light as applied to stage illumination. Practical application in lab work will include assisting in the lighting of a fully supported play, musical or dance production. Field trips may be required. Transfer: (CSU, UC)</td>
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<td>THETR 183</td>
<td>FUNDAMENTALS OF STAGE MAKE-UP 1</td>
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<td>54 Lecture hours, 33 Lab hours</td>
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<td>Fundamentals of basic two-dimensional stage make-up techniques: types of stage make-up, features of the face and properties, highlights and shadow, stylized types of characters including folk operas, animal, oils, and fantasy. Materials fee required. Transfer: (CSU, UC) General Education: (MJC-GE: Activities)</td>
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<td>THETR 184</td>
<td>FUNDAMENTALS OF STAGE MAKE-UP 2</td>
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<td>54 Lecture hours, 33 Lab hours</td>
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<td>Fundamental concepts of three-dimensional stage make-up and special effects. Topics include materials for special effects, negative and positive molds, aging techniques, and making makeup pieces. Transfer: (CSU, UC)</td>
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<td>THETR 185</td>
<td>MODERN DANCE 1</td>
<td>1</td>
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<td>54 Lab hours, Also offered as: PEC - 122 Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 185 or satisfactorily complete PEC 122. Basic modern dance technique, beginning with composition, improvisation, dance history, and philosophy. Dance as an art form and as recreation. Four completions allowed. Transfer: (CSU, UC) General Education: (MJC-GE: Activities)</td>
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<td>THETR 186</td>
<td>MODERN DANCE 2</td>
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<td>54 Lab hours, Also offered as: PEC - 123 Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 186 or satisfactorily complete PEC 122. Also offered as: PEC - 127 Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete PEC 133 or THETR 189. Intermediate level ballet technique and terminology. Students are required to have appropriate dance shoes and dance attire. Four completions allowed. Field trips might be required. Transfer: (CSU, UC) General Education: (MJC-GE: Activities)</td>
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**TUTOR - VOCWE**

**CURRICULUM CHANGES "IMPACT" PROOF**

**INACTIVATED**

**NEW/MODIFIED**

**PENDING 01/22 or NEEDS FURTHER REVIEW**
THETR 187—MODERN DANCE 3 1 UNIT
54 Lab hours
Also offered as: PEC - 124
Formerly listed as: THETR - 187A: Advanced Modern Dance
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 186 or satisfactorily complete PEC 123. Emphasis on advanced technical and artistic performance skills, composition, improvisation, partnering, and dance history. Transfer: (CSU, UC) Graduation: (MJC: Activities)

THETR 188—JAZZ 1 1 UNIT
54 Lab hours
Also offered as: PEC - 126
Formerly listed as: THETR - 188A: Jazz Dance
Technique of Jazz Dance with explorations into contemporary derivations of jazz. Emphasis on technical style of this form, and to the interrelationships of music and movement. Transfer: (A-F or P/NP) /Lab. MJC Activities. Transfer: (CSU, UC)

THETR 189—BALLET 1 1 UNIT
54 Lecture hours
Also offered as: PEC - 133
Formerly listed as: THETR 189: Ballet 1
Fundamental ballet technique and terminology. Students are required to have appropriate dance shoes and dance attire. Four completions allowed. Field trips might be required. Transfer: (A-F or P/NP) /Lab. MJC Activities. Transfer: (CSU, UC)

THETR 190A—THEATRE PRODUCTION WORKSHOP OR 2 UNITS
54 Lab hours, 57 Lab hours
Formerly listed as: THETR - 190A: Theatre Production Workshop
A = 54 Lab Hours, B = 108 Lab Hours,
A repeatable, multi-technical, lab-only course focusing on the practical aspect of mounting and running a theatrical production. The class covers the following areas of construction and crew management: scenery, sound, lighting properties, costumes, stage management, publicity, and house management. Four completions allowed. Field trips are not required. Transfer: (A-F or P/NP) /Lab. MJC Activities. Transfer: (CSU, UC) Graduation: (MJC: Activities)

THETR 192—REHEARSAL & PERFORMANCE 1 UNIT
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 100.
Participation and instruction in rehearsal and performance of a role in an MJC production. Required activities may include all aspects involved in the production of plays as well as rehearsal. Field trips are required. Transfer: (A-F or P/NP) /Lab. MJC Activities. Transfer: (CSU, UC) Graduation: (MJC: Activities)

THETR 194—INTRODUCTION TO WORLD DANCE 3 UNITS
54 Lecture hours
A survey of dance and its development as an art form through social, political and cultural context. Investigation of cultural traditions and styles, values, aesthetics and mores will be explored. Field trips required. Transfer: (A-F or P/NP) /Lab. MJC Activities. Transfer: (CSU, UC) Graduation: (MJC: Activities)

THETR 195—MOVEMENT FOR THE PERFORMING ARTIST 3 UNITS
45 Lecture hours, 57 Lab hours
Introduction to the fundamentals of movement as applied to body awareness, motor efficiency, and basic compositional components. Exploration of qualities and dynamics in performance through technique, improvisation, and compositional studies. Transfer: (A-F Only) /Lab. MJC Activities. Transfer: (CSU, UC)

THETR 196—THEATRE MANAGEMENT 1 UNIT
Recommended for Success: Before enrolling in this course, students are strongly advised to satisfactorily complete THETR 100.
The principals of theatre management: front-of-house operations; box office management and theatre business procedures; publicity and public relations; budget and organization for school, community and professional theatre. Field trips might be required. Transfer: (A-F or P/NP) /Lab. MJC Activities. Transfer: (CSU, UC)

THETR 197—BROADWAY/EUROPE THEATRE TRAVEL 1 UNIT
54 Lab hours
Preparation and participation in theatre related trips to New York City and Europe. The trips include theatre performances, backstage tours of theatre facilities, workshop with performers, directors, writers, critics and scholars. Program also includes tours of fine art exhibits, museums and other cultural events. Field trips are required. Transfer: (A-F or P/NP) /Lab. MJC Activities. Transfer: (CSU, UC)

TUTOR 50—TUTOR SEMINAR 2 UNITS
18 Lecture hours, 54 Lab hours
Non-degree course.
Designed for students to strengthen their effectiveness as tutors. Development of techniques of the tutoring process. Further development of strategies in the area of preparation, short and long-term planning, probing skills, critical thinking, study skills, and test-taking skills. Introduction to cultural understanding. Study of issues affecting tutors and students. Intended for students selected as tutors for the general campus. Lecture/Laboratory. (P/NP Only)

NON-CREDIT COURSES

TUTOR 810—TUTOR TRAINING
Designed as an introduction to the tutoring process. Introduction to preparation, expectations, probing skills, situations, and application of the learned techniques. Courses intended for students selected as tutors at MJC. Lecture/Laboratory.

TUTOR 850—SUPERVISED TUTORING
87 Lab hours
Provides for individual learning by students with expressed needs in study strategies, learning modes, and developmental materials. Learning experiences will be under instructional supervision. Repeatable. (Non-Graded course) Lab.

VOCWE (Work Experience, Vocational)

Modesto Junior College serves the needs of its students and those of the community through its Work Experience Program. A program objective is to provide guidance and opportunity for career planning students in the real laboratory of the communities’ businesses, industries and public agencies. Work experience education results when it encompasses a systematic plan whereby students, while in college, gain realistic employment experiences through work.

Two Work Experience programs are offered: General Work Experience and Vocational Work Experience. Employment may be on a paid or volunteer basis and may be at work sites on or off campus. For General Work Experience, please see WKEX (Work Experience, General).

Designed to provide extended learning opportunities in students’ chosen occupational fields, Vocational Work Experience programs become practical laboratories for reinforcing in-school training. Students should consult their advisors to determine divisional practice on work experience units acceptable toward major requirements.

Vocational work experience classes are available in all discipline areas using the number 349 A,B,C,D (1-4 units) except Nursing (see Nursing Program). With the exception of Administration of Justice, Agriculture, Child Development and Nursing, Vocational Work Experience students must register for and attend VOCWE 349S. During the first lecture meeting, the instructor will assist the student in adding to his or her schedule the appropriate Vocational Work Experience class depending on the student’s academic goals and employment setting.

VOCWE 3495—VOCATIONAL WORK EXPERIENCE SEMINAR 0 UNITS
Designed to accompany vocational work experience courses in all discipline areas (with the exception of Administration of Justice, Agriculture, Child Development and Nursing). Provides an orientation to the structure of cooperative work experience education and develops specific knowledge and skills related to employment situations through the accomplishment of goals. Includes job applications, resumes, interpersonal relationships, career selection, and relevant employment laws, regulations and policies. Lecture. Non graded. Maximum completions as needed to accompany DIV 349 A,B,C, or D

CURRICULUM CHANGES "IMPACT" PROOF
INACTIVATED- NEW/MODIFIED PENDING 01/22 or NEEDS FURTHER IO REVIEW
VOCE 349 A,B,C,D—WORK EXPERIENCE  1,2,3,4 UNITS
Prerequisite: Enrollment in a minimum of 7 units which may include Cooperative Work Experience and completion of or concurrent enrollment in one core or elective course in designated program.

Designed for students who wish to combine classroom experience with an expansion of skills or knowledge acquired at a site of employment on a paid or volunteer basis. Work must directly relate to the student’s area of study. Conversely, student should have a designated area of study demonstrated by completion of or concurrent enrollment in at least a minimal number of courses in that designated program. Sixteen maximum units in any combination of vocational work experience courses. Lecture: Lab: 75 paid hours or sixty unpaid hours of related work experience per semester equals 1 unit.

WELD (Welding)

Dean: Pedro Mendez
Office: John Muir 258W
Phone: (209) 575-6332
Division website: www.mjc.edu/prospective/programs/teched/sheetmetal/
Instructors: Sonny Gumm

WELD 200—ARC & GAS WELDING   3 UNITS
36 Lecture hours, 54 Lab hours
Introduction level course with a lecture/lab format of instruction. Activities and topics include oxyacetylene welding/cutting and shielded metal arc welding processes. Materials fee required. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: CSU

WELD 204—GAS METAL ARC WELDING (G.M.A.W) & FLUX CORE ARC WELDING (F.C.A.W)  3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as WELD 204 - Gas Metal Arc (MIG) Flux Core Arc (FCAW)
Prerequisite: Satisfactory completion of WELD 200.
Advanced occupational welding procedures for ferrous and non-ferrous metals, manual and automated oxyfuel cutting, carbon arc gouging. Includes the introduction of qualification testing procedures that meet the American Welding Society’s structural steel code(D1-1) certification. Materials fee required. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: CSU

WELD 206—GAS TUNGSTEN ARC WELDING (G.T.A.W.)  3 UNITS
36 Lecture hours, 54 Lab hours
Formerly listed as WELD 206 - Gas Tungsten Arc Welding (TIG)
Prerequisite: Satisfactory completion of WELD 200.
Advanced occupational course covering welding procedures for ferrous and non-ferrous sheet-metals and purge welding procedures for stainless steel tubing. Materials fee required. Field trips may be required. (A-F or P/NP) Lecture/Lab. Transfer: CSU

WELD 300—INTERMEDIATE WELDING  3 UNITS
36 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of WELD 200.
Intermediate level course that uses a lecture/lab format of instruction. Activities and topics cover the welding procedures for mild steel plate, manual and automated oxyfuel cutting, and carbon arc gouging. Qualification testing procedures that meet the American Welding Society’s structural code (D1-1) will also be covered. Materials fee required. Field trips may be required. (A-F or P/NP) Lecture/Lab

WELD 325—DESIGN AND FABRICATION PROCESSES  3 UNITS
36 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of WELD 204.
Theory of drawing to include techniques of sketching out ideas through the development of layout of final blueprints. Estimating cost including the selection of appropriate materials and fabrication processes. Projects are required. Field trips may be required. (A-F Only) Lecture/Lab.

WELD 340—PIPE WELDING   3 UNITS
36 Lecture hours, 54 Lab hours
Prerequisite: Satisfactory completion of WELD 300.
This course offers instruction (both lecture and laboratory) in mild steel pipe welding using the SMAW process. Activities and topics will include general pipe fitting, welding procedures, electrodes, applied layout, and fit-up, hangers, equipment, techniques. Practice in the certification procedure for the American Petroleum Institute (API 1104) code will also be covered. Materials fee required. Field trips are required. (A-F or P/NP) Lecture/Lab

WKFSK (Workforce Skills)

Dean: Pedro Mendez
Office: John Muir 258W
Phone: (209) 575-6332

NON-CREDIT COURSES

WKFSK 801—INTRODUCTION TO WORKFORCE DEVELOPMENT SKILLS
9 Lecture hours, 27 Lab hours
Training for employees on how to achieve success in any career situation. Explores elements of communication, team building, active listening and job retention skills. Open entry/open exit. Lecture. Field trips may be required. Four completions allowed.

WKFSK 802—THE ART OF ACTIVE LISTENING
16 Lecture hours
Training for employees on maximizing the effectiveness of communication in the workplace and elsewhere. Explores helpful listening techniques, dealing with listening problems, and negotiating win-win situations. Open-entry/open-exit. Lecture. Field trips may be required. Four completions allowed.

WKFSK 803—TROUBLESHOOTING ON THE JOB
5 Lecture hours
Training for employees on efficient and effective problem solving. Topics discussed include problem definition, finding the root cause, creating solutions, implementation of solutions and monitoring for success. Open-entry/open-exit. Lecture. Field trips may be required. Four completions allowed.

WKFSK 804—THE ART OF TEAMWORK
5 Lecture hours
Training for employees on becoming a true “team player.” Topics covered include: team roles, facilitation, team communication, reaching agreements, team goal-setting, and effective leadership. Open-entry/open-exit. Lecture. Field trips may be required. Four completions allowed.

WKFSK 810—SKILLS FOR SUCCEEDING AT A NEW JOB
5 Lecture hours
Intended for those just starting to work who are looking for skills to achieve success as a new employee. Explores in-depth job retention skills including job transition concepts, workplace expectations, customer service, attitude feedback and balancing work and personal life. Field trips may be required. Four completions allowed.

WKFSK 820—APPLIED MATHEMATICS FOR THE WORKPLACE
30 Lecture hours
An easy-to-use, computerized, open-entry/open-exit applied mathematics course. Methods to solve one-step mathematical operations and utilize these skills with work-related problems. Examples and situations focus on applying problem-solving skills in real-world situations. Uses a variety of interactive exercises so that the learner can practice each concept. A calculator function to solve one-step mathematical operations and utilize these skills with work-related problems. Examples and situations focus on applying problem-solving skills in real-world situations. Uses a variety of interactive exercises so that the learner can practice each concept. A calculator function and formula sheet are available to the learner with a simple mouse-click. Detailed solutions to the problems are explained, allowing students to analyze their mistakes. A full human-voice sound track and immediate feedback aid learning. Non-graded.
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