2014-2015 PETITION/PROGRAM SHEET
Degree: Associate of Applied Science
Major: Manufacturing Technology
Emphasis: Machining Technology

About This Degree . . .

The Associate of Applied Science with the Manufacturing Technology major offers classroom instruction and related lab work with hands-on activities in the use of tools and the operation of equipment found in manufacturing. In the Machining Technology emphasis students learn to apply industrial knowledge and skills to plan and implement designs, operate manual mills and lathes, operate computer-aided machinery with CAD/CAM software, and computer-numerical controlled (CNC) machines. Students also develop the skills that enable them to read blueprints, apply appropriate mathematical concepts, and understand the properties of metal and polymers. This course of study is designed to meet competency-based standards set by the manufacturing industry. With this degree, student will be qualified for the following employment opportunities: entry-level machinist, computer-numerical control operator, numerical tool and process technician, manufacturing engineering technician, and manufacturing inspection technician.

For more information on what you can do with this major, go to http://www.coloradomesa.edu/wccc/programs.html

All CMU associate graduates are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Use written and oral communication skills needed for entry level employment in the manufacturing industry. (Communication Fluency)
2. Apply mathematical concepts to perform machining tasks. (Quantitative Fluency)
3. Distinguish between tolerances and dimensions, as used in the machining industry. (Critical Thinking)
4. Summarize business practices, principles and application of associated technical skill in the machining in industry. (Specialized Knowledge)
5. Apply the necessary machining skill sets to perform specified manufacturing processes. (Applied Learning)
6. Determine ethical and civil responsibility necessary for employees in the manufacturing industry. (Specialized Knowledge)

NAME: ___________________________ STUDENT ID # ___________________________

LOCAL ADDRESS AND PHONE NUMBER: ___________________________________________________________________________

(________) ____________

I, (Signature) ___________________________, hereby certify that I have completed (or will complete) all the courses listed on the Program Sheet. I have read and understand the policies listed on the last page of this program sheet. I further certify that the grade listed for those courses is the final course grade received except for the courses in which I am currently enrolled and the courses which I complete next semester. I have indicated the semester in which I will complete these courses.

Signature of Advisor Date

Signature of Department Head Date

Signature of Registrar Date

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Posted June 2014
Students should work closely with a faculty advisor when selecting and scheduling courses prior to registration.

Degree Requirements:
- 69 semester hours total (A minimum of 16 taken at CMU in no fewer than two semesters)
- 2.00 cumulative GPA or higher in all CMU coursework and a “C” or better must be achieved in coursework toward major content area.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- A student must follow the CMU graduation requirements either from 1) the program sheet for the major in effect at the time the student officially declares a major; or 2) a program sheet for the major approved for a year subsequent to the year during which the student officially declares the major and is approved for the student by the department head. Because a program may have requirements specific to the degree, the student should check with the faculty advisor for additional criteria. It is the student’s responsibility to be aware of, and follow, all requirements for the degree being pursued. Any exceptions or substitutions must be approved by the student’s faculty advisor and Department Head.
- When filling out the program sheet a course can be used only once.
- See the “Undergraduate Graduation Requirements” in the catalog for additional graduation information.

GENERAL EDUCATION REQUIREMENTS (Minimum 15 semester hours) See the current catalog for a list of courses that fulfill the requirements below. If a course is on the general education list of options and a requirement for your major, you must use it to fulfill the major requirement and make a different selection within the general education requirement.

<table>
<thead>
<tr>
<th>Course No</th>
<th>Title</th>
<th>Sem.hrs</th>
<th>Grade</th>
<th>Term/Trns</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 111</td>
<td>English Composition</td>
<td>3</td>
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<tr>
<td>ENGL 112</td>
<td>English Composition</td>
<td>3</td>
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<tr>
<td>SPCH 101</td>
<td>Interpersonal Communication</td>
<td>3</td>
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<tr>
<td>SPCH 102</td>
<td>Speechmaking</td>
<td>3</td>
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Mathematics: Minimum Math 107 Career Mathematics (Minimum 3 semester hours)

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<th>Course No</th>
<th>Title</th>
<th>Sem.hrs</th>
<th>Grade</th>
<th>Term/Trns</th>
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</thead>
<tbody>
<tr>
<td>PHYS100</td>
<td>Concepts of Physics</td>
<td>3</td>
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</table>

OTHER LOWER DIVISION REQUIREMENTS

<table>
<thead>
<tr>
<th>Wellness</th>
<th>(2 semester hours)</th>
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<tbody>
<tr>
<td>KINE 100</td>
<td>Health and Wellness 1</td>
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</table>

ASSOCIATE OF APPLIED SCIENCE: MANUFACTURING TECHNOLOGY _ MACHINING TECHNOLOGY COURSE REQUIREMENTS (52 semester hours)

<table>
<thead>
<tr>
<th>Course No</th>
<th>Title</th>
<th>Sem.hrs</th>
<th>Grade</th>
<th>Term/Trns</th>
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</thead>
<tbody>
<tr>
<td>CADT101</td>
<td>Introduction to Computers</td>
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<td>CADT 108</td>
<td>CAD Mechanical</td>
<td>3</td>
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<tr>
<td>MAMT101</td>
<td>Introduction to Manufacturing</td>
<td>2</td>
<td></td>
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<tr>
<td>MAMT105</td>
<td>Print Reading/Sketching</td>
<td>2</td>
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<tr>
<td>MAMT106</td>
<td>Geometric Tolerancing</td>
<td>1</td>
<td></td>
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<tr>
<td>MAMT115</td>
<td>Introduction to Machine Shop</td>
<td>3</td>
<td></td>
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<tr>
<td>MAMT120</td>
<td>Machine Technology I</td>
<td>4</td>
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<tr>
<td>MAMT125</td>
<td>Machine Technology II</td>
<td>4</td>
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<td>MAMT130</td>
<td>Machine Technology III</td>
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<td>MAMT140</td>
<td>Job Shop Machining II</td>
<td>3</td>
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<tr>
<td>MAMT170</td>
<td>Practical Applications</td>
<td>3</td>
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<td>MAMT148</td>
<td>CNC Applications</td>
<td>3</td>
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<td>MAMT151</td>
<td>Numerical Control Machining I</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>MAMT155</td>
<td>Numerical Control Machining II</td>
<td>3</td>
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<tr>
<td>MAMT160</td>
<td>Properties of Materials</td>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>MAMT207</td>
<td>Intro to Statistical Processes</td>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>TSTG 220</td>
<td>Industry Employment Practices</td>
<td>3</td>
<td></td>
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<tr>
<td>WELD151</td>
<td>Introduction to Welding</td>
<td>3</td>
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Social Sciences, Natural Science, Fine Arts or Humanities or Selected Applied Studies Courses* (Minimum 6 semester hours)

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<thead>
<tr>
<th>Course No</th>
<th>Title</th>
<th>Sem.hrs</th>
<th>Grade</th>
<th>Term/Trns</th>
</tr>
</thead>
</table>

*Please see your advisor for requirements specific to this program.
SUGGESTED COURSE SEQUENCING FOR THE ASSOCIATE OF APPLIED SCIENCE WITH A
MAJOR IN MANUFACTURING TECHNOLOGY, EMPHASIS IN MACHINING TECHNOLOGY

This is a recommended sequence of course work. Certain courses may have prerequisites or are only offered during the Fall or Spring semesters. It is the student’s responsibility to meet with the assigned advisor and check the 2 year course matrix on the Colorado Mesa website for course availability.

First Semester  Hours
MATH 107 Math for Technology or
MATH 113 College Algebra 3
MAMT 115 Introduction to Machine Shop 3
MAMT 120 Machine Technology I 4
MAMT 125 Machine Technology II 4
MAMT 148 CNC Applications 3
18

Second Semester  Hours
MAMT 130 Machine Technology II 4
MAMT 151 Numerical Control Machining I 3
MAMT 155 Numerical Control Machining II 3
MAMT 140 Job Shop Machining II or
MAMT 170 Practical Application 3
MAMT 160 Properties of Materials 2
MAMT 105 Print Reading/Sketching 2
MAMT 106 Geometric Tolerancing 1
18

Third Semester  Hours
CADT 101 Introduction to Computers 1
MAMT 101 Introduction to Manufacturing 2
General Education Soc/Beh Sci., Humanities, Speech 6
ENGL 111 English Composition 3
MAMT 207 Intro to Statistical Process Control 2
PHYS 100 Concepts of Physics 3
(or higher)
KINE 100 Health & Wellness 1
18

Fourth Semester  Hours
CADT 108 CAD Mechanical 3
ENGL 112 English Composition 3
TSTG 220 Industry Employment Practices 3
WELD 151 Introduction to Welding 3
KINA 1 Activity 1
Electives 3
16

POLICIES:
1. It is your responsibility to determine whether you have met the requirements for your degree. Please see the catalog for a complete list of graduation requirements.
2. You must turn in your “Intent to Graduate” form to the Registrar’s Office by September 15 if you plan to graduate the following May, and by February 15 if you plan to graduate the following December.
3. This program sheet must be submitted with your graduation planning sheet to your advisor during the semester prior to the semester of graduation, no later than October 1 for spring graduates, no later than March 1 for fall graduates.
4. Your advisor will sign and forward the Program Sheet and Graduation Planning Sheet to the Department Head for signature.
5. Finally, the Department Head or the department administrative assistant will take the signed forms to the Registrar’s Office. (Students cannot handle the forms once the advisor signs.)
6. If your petition for graduation is denied, it will be your responsibility to reapply for graduation in a subsequent semester. Your “Intent to Graduate” does not automatically move to a later graduation date.
7. NOTE: The semester before graduation, you may be required to take a Major Field Achievement Test (exit exam).