South Central College
Program Design

AAS 2442/3458 Machine Tool Technology

Program Information

Instructional Level  Associate Degree
Career Cluster  Engineering, Manufacturing & Technology

Description
The A.A.S degree program consists of opportunities for students to work with multiple aspects of Machine Tool Technology including working with engineering drawings, CNC programming, lathe turning, vertical milling and grinding, jig and fixtures, and mold and die. During this A.A.S. degree program, learners will have the opportunity to receive national credentials from the National Institute for Metalworking Skills (NIMS). In addition to the technical training, learners in the A.A.S. degree will receive the benefits of valuable Liberal Arts and Sciences courses.

Program Admission Dates (Fall and/or Spring)

Fall

Program Location (North Mankato and/or Faribault)

North Mankato and Faribault

Program Student Learning Outcomes

1  Operate industry-specific computer software
2  Demonstrate computer machining skills
3  Demonstrate safe machining practices
4  Produce quality machined parts
5  Evaluate the quality of machined parts against industry standards

Program Configurations

Fall 2018

Credits

| Technical Course | 57 |
| Liberal Arts & Sciences | 15 |
| **Total Credits** | **72** |
### Semester 1 Fall

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>MTT 1110</td>
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<td>CMAE 1528</td>
<td>Career Success Skills</td>
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### Semester 2 Spring

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<td>Concept Engineering I</td>
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<tr>
<td>MTT 1220</td>
<td>CNC Programming I</td>
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<tr>
<td>MTT 1230</td>
<td>Quality Assurance I</td>
<td>2</td>
<td>Technical Course</td>
</tr>
<tr>
<td>MTT 1240</td>
<td>Applications I</td>
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<tr>
<td>LAS Elective</td>
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### Semester 4

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<tr>
<td>MTT 2110</td>
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<td>CNC Programming II</td>
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<td>MTT 2130</td>
<td>Quality Assurance II</td>
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<td>COMM 120</td>
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### Semester 5

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<td>MTT 2250</td>
<td>MTT Capstone</td>
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<th>Pre/Corequisites</th>
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<tbody>
<tr>
<td>CMAE 1514</td>
<td>Safety Awareness</td>
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<td>CMAE 1518</td>
<td>Manufacturing Process and Production</td>
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<td>CMAE 1522</td>
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<td>PHYS 101</td>
<td>Introductory Physics</td>
<td>3</td>
<td>MATH 0075 with a C or higher, or a score of 56 or higher on the Arithmetic portion of the Accuplacer test.</td>
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