Aerospace Technology Computer Numerical Control (CNC) Mill Operation

Basic Technical Certificate

Professional-Technical Program

This program prepares students for entry-level employment in the Aerospace manufacturing industries utilizing Computer Numerical Control (CNC) Mills. The curriculum will provide students with the fundamental skills necessary to setup and run CNC milling machines including setting work and cutter offsets, cutter and tool holder selection, speeds and feeds, the use of work holding fixtures and vises, handwork and inspection, along with the basics of G-code and an intro to Mastercam. The program will also provide students with an understanding of machining aircraft alloys and composites along with the basics of 5-axis and using a probe.

Students will participate in a blended learning environment. Some courses are delivered in an online delivery format. Students will be participating in an IBEST learning environment to support student success. Prospective students should have solid math skills and demonstrate mechanical aptitude. Computer and keyboarding skills are recommended.

Program Requirements

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
<td>AERO-110</td>
<td>Safety/OSHA</td>
<td>1</td>
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<tr>
<td>AERO-111</td>
<td>Blueprint Reading</td>
<td>2</td>
</tr>
<tr>
<td>AERO-151</td>
<td>Introduction to CNC Mill</td>
<td>3</td>
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<tr>
<td>AERO-152</td>
<td>CNC Mill Setup and Operation</td>
<td>3</td>
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<tr>
<td>AERO-153</td>
<td>Aerospace CNC Mill Operation</td>
<td>3</td>
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<tr>
<td>AERO-154</td>
<td>5-Axis Mill Setup and Operation</td>
<td>3</td>
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<tr>
<td>MCTE-103</td>
<td>Technical Mathematics for Aerospace Technology</td>
<td>3</td>
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Program Total 18