# Program of Study

**Career Field:** Industrial, Manufacturing and Engineering Systems  
**Career Cluster:** Manufacturing  
**Career Pathway:** Production

## Northeast Community College

**DEGREE:** Welding  
http://www.northeast.edu/Degrees-and-Programs/Welding

<table>
<thead>
<tr>
<th>GRADE</th>
<th>ENGLISH</th>
<th>MATH</th>
<th>SCIENCE</th>
<th>SOCIAL STUDIES</th>
<th>GENERAL ELECTIVES</th>
<th>PATHWAY ELECTIVE COURSES</th>
<th>EXTENDED LEARNING SCHOOL/COMMUNITY ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>World Languages and Cultures</td>
<td>World History</td>
<td>Into to Manufacturing/Mechatronics Manufacturing- Woods Manufacturing- Metals</td>
</tr>
<tr>
<td>9</td>
<td>English/Language Arts I</td>
<td>Algebra I</td>
<td>Physical Science</td>
<td>Geography</td>
<td>Physical Education</td>
<td>Health Education</td>
<td>Information Technology Applications I Entrepreneurship</td>
</tr>
<tr>
<td>10</td>
<td>English/Language Arts II</td>
<td>Geometry</td>
<td>Biology</td>
<td>World History</td>
<td>CAD (Computer Aided Drafting) Principles of Design</td>
<td>American History</td>
<td>Principles of Construction</td>
</tr>
<tr>
<td>11</td>
<td>English/Language Arts III</td>
<td>Algebra II</td>
<td>Chemistry or other science course</td>
<td>American History</td>
<td>Principles of Construction</td>
<td>Housing and Home Furnishings</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>English/Language Arts IV</td>
<td>Intro to Statistics Descrete Math Pre-Calc</td>
<td>Physics</td>
<td>American Government or Economics</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## COMMUNICATIONS

- Career Composition

## MATH

- Applied Mathematics I

## SCIENCE

- Science

## SOCIAL SCI/HUMANITIES

- Humanities

## DEGREE REQUIREMENTS

- Introduction to Welding and Lab
- Metallurgy I
- Related Drafting
- Metallurgy II
- Blueprint Reading
- First Aid

## MAJOR COURSES

- Shop Operations and Lab
- Welding Specialties and Lab

---

**NORTHEAST COMMUNITY COLLEGE**

**HIGH SCHOOL**

**COMMUNICATIONS**

- Career Composition  
- World Languages and Cultures  
- Physical Education  
- Health Education  
- Information Technology Applications  
- Entrepreneurship  
- CAD (Computer Aided Drafting)  
- Principles of Design  
- Principles of Construction  
- American History  
- Manufacturing/Mechatronics  
- Manufacturing- Woods  
- Manufacturing- Metals  
- American Government or Economics  
- Into to Manufacturing/Mechatronics  
- Manufacturing- Woods  
- Manufacturing- Metals  
- Principles of Design  
- Principles of Construction  
- American History  
- American Government or Economics  
- Into to Manufacturing/Mechatronics  
- Manufacturing- Woods  
- Manufacturing- Metals  
- American Government or Economics  

**MATH**

- Algebra I  
- Geometry  
- Algebra II  
- Intro to Statistics Descrete Math Pre-Calc  
- Applied Mathematics I  

**SCIENCE**

- Physical Science  
- Biology  
- Chemistry or other science course  
- Physics  

**SOCIAL STUDIES**

- Geography  
- World History  
- American History  
- American Government or Economics  

**GENERAL ELECTIVES**

- World Languages and Cultures  
- Physical Education  
- Health Education  
- Information Technology Applications  
- Entrepreneurship  
- CAD (Computer Aided Drafting)  
- Principles of Design  
- Principles of Construction  
- American History  
- Manufacturing/Mechatronics  
- Manufacturing- Woods  
- Manufacturing- Metals  
- American Government or Economics  

**PATHWAY ELECTIVE COURSES**

- Into to Manufacturing/Mechatronics  
- Manufacturing- Woods  
- Manufacturing- Metals  
- American Government or Economics  

<table>
<thead>
<tr>
<th>COMMUNICATIONS</th>
<th>MATH</th>
<th>SCIENCE</th>
<th>SOCIAL SCI/HUMANITIES</th>
<th>DEGREE REQUIREMENTS</th>
<th>MAJOR COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Composition</td>
<td>Applied Mathematics I</td>
<td>Science</td>
<td>Humanities</td>
<td>Introduction to Welding and Lab</td>
<td>Metallurgy I</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Metallurgy II</td>
<td>Related Drafting</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Blueprint Reading</td>
<td>First Aid</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Shop Operations and Lab</td>
<td>Welding Specialties and Lab</td>
</tr>
</tbody>
</table>