# MECHANICAL ENGINEERING

**PROJECT LEAD THE WAY™ (PLTW)**

- Program of Study -

**Career Cluster:** Science, Technology, Engineering & Mathematics  
**Career Pathway:** Engineering and Technology

This Academic Plan is based upon the state requirements needed for an Advanced Diploma. Academic course names may vary among school districts.

<table>
<thead>
<tr>
<th>Grade</th>
<th>1st Course</th>
<th>2nd Course</th>
<th>3rd Course</th>
<th>4th Course</th>
<th>5th Course</th>
<th>6th Course (CTE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th Grade</td>
<td>English I</td>
<td>Algebra I</td>
<td>Biology</td>
<td>Health / Computer Literacy</td>
<td>Physical Education</td>
<td>PLTW-Introduction to Engineering Design</td>
</tr>
<tr>
<td>10th Grade</td>
<td>English II</td>
<td>Geometry</td>
<td>Chemistry or Geoscience</td>
<td>World History</td>
<td>Physical Education</td>
<td>PLTW-Principles of Engineering</td>
</tr>
<tr>
<td>11th Grade</td>
<td>English III</td>
<td>Algebra II</td>
<td>Science Course or Elective¹</td>
<td>US History</td>
<td>Foreign Language² or Elective¹</td>
<td>PLTW-Computer Integrated Manufacturing³</td>
</tr>
<tr>
<td>12th Grade</td>
<td>English IV</td>
<td>Senior Level Math Course</td>
<td>Elective¹</td>
<td>US Government</td>
<td>Foreign Language² or Elective¹</td>
<td>PLTW-Engineering Design and Development</td>
</tr>
</tbody>
</table>

¹ Electives may include arts and humanities courses or other career and technical education courses that relate to the program of study.  
² Foreign Language courses are recommended if a student is planning on entering a university. (See individual university admission policies)  
³ CTE Assessments will be administered during the completion level CTE course.

## Career and Technical Student Organizations

SkillsUSA

## Work-Based Learning

Job Shadowing / Internship / Work Experience / Career Days / Career Fairs / Field Trips / Guest Speakers

## CTE Assessments

1) End of Program Technical Assessment for Mechanical Engineering  
2) Workplace Readiness Skills Assessment (for Employability Skills Standards)

## Postsecondary Options

College of Southern Nevada / Great Basin College / Nevada State College / Truckee Meadows Community College / University of Nevada, Las Vegas / University of Nevada, Reno / Western Nevada College

**Secondary Program Requirements**

Student must earn the state Certificate of Skill Attainment in Mechanical Engineering.

**Postsecondary Credit Options**

To Be Determined

## State Articulation Agreements for CTE College Credit

Refer to the Governor’s Office of Workforce Innovation’s [Nevada Eligible Industry Credentialing List](#)

## High Wage - High Skill - High Demand Careers

Mechanical Engineer / Electrical Engineer / Industrial Engineer / Manufacturing Engineer / Materials Engineer / Product Engineer / Quality Engineer / Project Engineer / Designer / Drafter

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