Engineering & Design

This Pathway is designed to provide a foundation in engineering & design. The program offers classroom, laboratory, & hands-on learning. Students are engaged in an instructional program that integrates academic & technical preparation as well as career exploration that emphasizes real world, relevant STEM experiences in:

- Architectural Design
- Engineering Technology
- Engineering Design
- Aerospace Engineering
- Robotics

Students will be prepared for:

- Continued training in challenging High School courses
- Direct entry to Engineering Pathway in High School

For More Information

Please visit your school counselor or Regional Occupational Program career specialist.
School websites:
www.ensign.nmusd.us
www.tewinkle.nmusd.us
www.cmhs.nmusd.us

To determine what kind of degree, certificate, or training program aligns with the courses taken in this high school program, visit your anticipated college website. The information can be found in the academics tab, labeled course catalog or handbook, where the available routes to become certified or eligible to transfer are listed.

College & Career Education Office
nmusd-ca.schoolloop.com/cte
714.424.5044

The Newport Mesa Unified School District Board of Education is committed to equal opportunity for all individuals in education. District programs, activities, practices, and employment shall be free from discrimination, harassment, intimidation, and bullying based on race, color, ancestry, national origin, immigration status, ethnic group identification, age, religion, marital or parental status, pregnancy, physical or mental disability, sex, sexual orientation, gender, gender identity or expression or the perception of one or more of such characteristics; or association with a person or a group with one or more of these actual or perceived characteristics. This policy applies to all acts related to school activity or school attendance within a school under the jurisdiction of the Superintendent.
## ENGINEERING & DESIGN PATHWAY

### Colleges & Majors

- **Saddleback College**
  - Architectural Drafting
  - Drafting Technology
  - Engineering Statistics
  - Manufacturing Technology

- **Irvine Valley College**
  - Computer-Aided Design
  - Design Model Making
  - Pre-Engineering

- **CSUF**
  - Civil Engineering
  - Computer Engineering
  - Electrical Engineering
  - Mechanical Engineering

- **CSUSD**
  - Aerospace Engineering
  - Computer Engineering
  - Civil Engineering
  - Electrical Engineering
  - Environmental Engineering
  - Mechanical Engineering
  - Construction Engineering
  - Computer Engineering

- **CAL POLY**
  - Architecture
  - Landscape Architecture

- **UCI**
  - Aerospace Engineering
  - Chemical Engineering
  - Computer Engineering
  - Electrical Engineering
  - Engineering Management
  - Environmental Engineering
  - Materials Science Engineering
  - Mechanical Engineering
  - Software Engineering

### Sample Program by Semester

<table>
<thead>
<tr>
<th>Site</th>
<th>7th-1st</th>
<th>7th-2nd</th>
<th>8th-1st</th>
<th>8th-2nd</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMMS</td>
<td>Design &amp; Modeling</td>
<td>Automation &amp; Robotics</td>
<td>Flight &amp; Space</td>
<td>Medical Detective</td>
</tr>
<tr>
<td>ENSIGN</td>
<td>Design &amp; Modeling</td>
<td>Automation &amp; Robotics</td>
<td>Robotics &amp; Programing</td>
<td></td>
</tr>
<tr>
<td>TEWINKLE</td>
<td>Design &amp; Modeling</td>
<td>Automation &amp; Robotics</td>
<td>Green Architecture</td>
<td>Medical Detective</td>
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</tbody>
</table>

### Income & Jobs

<table>
<thead>
<tr>
<th>Average Income</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100,000.00</td>
<td>Nuclear Engineer</td>
</tr>
<tr>
<td>$87,000.00</td>
<td>Electrical Engineer</td>
</tr>
<tr>
<td>$85,000.00</td>
<td>Environmental Engineer</td>
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<tr>
<td>$84,000.00</td>
<td>Civil Engineer</td>
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<tr>
<td>$84,000.00</td>
<td>Mechanical Engineer</td>
</tr>
<tr>
<td>$83,000.00</td>
<td>Aerospace Engineer</td>
</tr>
<tr>
<td>$82,000.00</td>
<td>Structural Engineer</td>
</tr>
<tr>
<td>$81,000.00</td>
<td>Industrial Engineer</td>
</tr>
<tr>
<td>$80,000.00</td>
<td>Architect</td>
</tr>
<tr>
<td>$80,000.00</td>
<td>Landscape Architect</td>
</tr>
<tr>
<td>$75,000.00</td>
<td>Biomedical Engineer</td>
</tr>
<tr>
<td>$73,000.00</td>
<td>Lighting Designer</td>
</tr>
<tr>
<td>$70,000.00</td>
<td>Contractor</td>
</tr>
<tr>
<td>$70,000.00</td>
<td>Product Designer</td>
</tr>
<tr>
<td>$68,000.00</td>
<td>Urban Planner</td>
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<tr>
<td>$66,000.00</td>
<td>City Planner</td>
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<tr>
<td>$55,000.00</td>
<td>Set Designers</td>
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<tr>
<td>$50,000.00</td>
<td>Architectural Drafter</td>
</tr>
<tr>
<td>$48,000.00</td>
<td>Interior Designer</td>
</tr>
</tbody>
</table>

A Pathway is an opportunity for students to complete sequential courses in Career Technical Education, as they progress toward graduation. This increases their options by exploring careers for post-secondary education and future employment.

https://salarysurfer.cccco.edu