### Suggested High School Courses

#### 9th Grade

**Core Academic Courses**: English 9, American Government or Geography, Earth Science, Algebra 1 or Algebra Principles or Honors Algebra 1, Physical Education  
**Career Path Courses**: Introduction to Engineering Design  
**Suggested Electives**: Metals Technology, Introduction to Computer Programming

#### 10th Grade

**Core Academic Courses**: English 10, American History, Biology, Geometry or Principles of Engineering, or Honors Geometry  
**Career Path Courses**: Information Technology Applications, Principles of Engineering  
**Suggested Electives**: Engineering Principles, Intermediate Metals Technology

#### 11th Grade

**Core Academic Courses**: English 11, Algebra 2 or Honors Algebra 2 or Algebra 2 for Process Science, World History  
**Career Path Courses**: Product Engineering and Development, Digital Electronics  
**Suggested Electives**: Introduction to Engineering Design, Intermediate Computer Programming

#### 12th Grade

**Core Academic Courses**: English 12, Government/Economics, Math Analysis/Trigonometry  
**Career Path Courses**: Civil Engineering and Architecture, Engineering Innovation  
**Suggested Electives**: Digital Electronics

### Secondary to Postsecondary Linkages & Certifications

**Postsecondary Credit Options**:  
Computer Aided Drafting I and II (CAD 101 and 102); Drafting & Design I and II (EGT 230 and 231)

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**Red Rocks Community College Department of High School Relations**: For more information on postsecondary course options for high school students and for admission to RRCC, please contact, Ernie Navarette at 303-914-6320 or ernie.navarette@rrcc.edu.

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*** This document is a guide only. It does not act as a legally binding contract.

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**Career & Technical Education** is delivered through the Colorado Community College System [www.cccs.edu](http://www.cccs.edu)
### Pathway: Engineering & Technology

**Career Goal (O*Net Code):** [http://www.onetonline.org/](http://www.onetonline.org/)

- **17-3011.02** Civil Drafters
- **17-3022.00** Civil Engineering Technicians
- **17-2051.00** Civil Engineers
- **17-3019.99** Drafters
- **17-3013.99** Mechanical Drafters
- **17-2141.00** Mechanical Engineers

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### Plan of Study: Mechanical Engineering

**Relevant Occupational Experience**

*(Your Life Experiences may be worth College Credit!): [CCCS Credit for Prior Learning Guide](#)*

Contact Delia Ochoa ([delia.ochoa@rrcc.edu](mailto:delia.ochoa@rrcc.edu)) for inquiries concerning earning college credit for life experience in computer aided drafting.

### LMI Gateway Link to Related Occupations

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### Possible Pathways to your Career!

<table>
<thead>
<tr>
<th>Programs Available</th>
<th>Program Length (<em>Based on meeting Program Entrance Requirements</em>)</th>
<th>Estimated Tuition</th>
<th>Career Options</th>
<th>Salary Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Certificate Options</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intro to AutoCAD</td>
<td>Civil</td>
<td>Mechanical Drafting</td>
<td>SolidWorks</td>
<td>6 cr.</td>
</tr>
<tr>
<td><strong>Associate Degree(s)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civil</td>
<td>Mechanical</td>
<td>Both are 61 credits</td>
<td>$7,667</td>
<td>Civil Engineering Technician, Mechanical Engineering Technician</td>
</tr>
</tbody>
</table>

*Articulation Opportunities to Advanced Degrees:*

**Advanced Degrees:**

- Bachelor’s Degrees:
  - Metallurgy and Materials
  - Engineering Physics
  - Civil Engineering
  - Mechanical Engineering
  - Environmental Engineering
  - Space Engineering
  - Industrial Engineering
  - Engineering/Mechatronics
  - Engineering Management
  - Aerospace Engineering

  *Associates Degree + 60+ Credits*

  For more information about colleges that have these programs go to [www.CollegeinColorado.org](http://www.CollegeinColorado.org)

  Engineering Technologist, Environmental Engineer, Aerospace Engineer, Civil Engineer, Mechanical Engineer  
  $ - $$$

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### Graduate Degree:

<table>
<thead>
<tr>
<th>Corporate Engineering, Engineering Technology Analyst</th>
<th>$-$$$$</th>
</tr>
</thead>
</table>

### Support Structures:
- Childcare facilities, Counseling Services, Tutoring Services, Academic Advising and Career Counseling
  - [http://www.rrcc.edu/advising/](http://www.rrcc.edu/advising/)

### Financial Aid:
- Federal Student Loans, Pell Grant, RRCC Foundation Grant
  - [http://www.rrcc.edu/finaid/](http://www.rrcc.edu/finaid/)

### Professional Affiliations
- American Chemical Society
- American Institute of Aeronautics and Astronautics
- American Institute of Chemical Engineering
- American Society of Civil Engineers
- American Society of Mechanical Engineers
- Institute of Electrical and Electronic Engineers
- Mathematical Association of America
- National Society of Black Engineers
- Society of Automotive Engineers
- Society of Hispanic Professional Engineers
- Society of Women Engineers

### Practical Learning Experiences:
- Paid and Un-paid job shadowing and internships
- Example: Community Service Volunteer

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* = $15-25,000; $$ = $25-55,000; $$$ = $55-90,000; $$ $$ = Above $90,000

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[College Tuition Comparison Guide](http://www.CollegeinColorado.org)

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Red Rocks Community College is accredited by the Higher Learning Commission and a member of the North Central Association of Colleges and Schools.

Red Rocks Community College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities. Please direct inquiries to: Bill Dial, Director of HR, Red Rocks Community College, 13300 W. 6th Ave., Lakewood, CO 80228

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