

**Secondary to Postsecondary Pathway for
Engineering & Technology: Mechanical and Civil Engineering**

Suggested High School Courses

High School	9 th	Core Academic Courses*:	English 9, American Government or Geography, Earth Science, Algebra 1 or Algebra Principles or Honors Algebra 1, Physical Education	Suggested Electives: Metals Technology Introduction to Computer Programming
		Career Path Courses:	Introduction to Engineering Design	
	10 th	Core Academic Courses*:	English 10, American History, Biology, Geometry or Geometry or Principles, or Honors Geometry	Suggested Electives: Engineering Principles Intermediate Metals Technology
		Career Path Courses:	Information Technology Applications, Principles of Engineering	
	11 th	Core Academic Courses*:	English 11, Algebra 2 or Honors Algebra 2 or Algebra 2 for Process Science, World History	Suggested Electives: Introduction to Engineering Design Intermediate Computer Programming
		Career Path Courses:	Product Engineering and Development, Digital Electronics	
	12 th	Core Academic Courses*:	English 12, Government/Economics, Math Analysis/Trigonometry	Suggested Electives: Digital Electronics
		Career Path Courses:	Civil Engineering and Architecture, Engineering Innovation	


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)

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.

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

 <p>VA Jobs, A/V Technology & Communications</p>	<p>Pathway: Engineering & Technology</p>	<p>Plan of Study: Mechanical Engineering</p>
<p>Career Goal (O*Net Code): 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</p>		<p>Relevant Occupational Experience (Your Life Experiences may be worth College Credit!): CCCCS Credit for Prior Learning Guide</p> <p>Contact Delia Ochoa (delia.ochoa@rrcc.edu) for inquiries concerning earning college credit for life experience in computer aided drafting.</p> <p>LMI Gateway Link to Related Occupations</p>

Possible Pathways to your Career!

	Programs Available	Program Length (*Based on meeting Program Entrance Requirements)	Estimated Tuition	Career Options	Salary Range
Certificate Option(s)	Intro to AutoCAD Civil Mechanical Drafting SolidWorks	6 cr. 15 cr. 12 cr. 17 cr. 18 cr.	\$802 \$1957 \$1572 \$2213 \$2342	Civil Drafters (CAD) Mechanical Drafters (CAD)	\$ - \$\$
Associate Degree(s)	Civil Mechanical	Both are 61 credits	\$7,667	Civil Engineering Technician, Mechanical Engineering Technician	\$ - \$\$\$

Articulation Opportunities to Advanced Degrees:

Advanced Degrees	<p>Bachelor's Degrees:</p> <p>Metallurgy and Materials Engineering Physics Civil Engineering Mechanical Engineering Environmental Engineering Space Engineering Industrial Engineering Engineering/Mechatronics Engineering Management Aerospace Engineering</p>	Associates Degree + 60+ Credits	For more information about colleges that have these programs go to www.CollegeinColorado.org	Engineering Technologist, Environmental Engineer, Aerospace Engineer, Civil Engineer, Mechanical Engineer	\$ - \$\$\$\$
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Graduate Degree:	Bachelor's Degree + 30 or more credits	For more information about colleges that have these programs go to www.CollegeinColorado.org	Corporate Engineering, Engineering Technology Analyst	\$- \$\$\$\$
College Tuition Comparison Guide				

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

Extended Learning Experiences

Support Structures:

Childcare facilities, Counseling Services, Tutoring Services, Academic Advising and Career Counseling

<http://www.rrcc.edu/advising/>

Financial Aid:

Federal Student Loans, Pell Grant, RRCC Foundation Grant

<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

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