

**Secondary to Postsecondary Pathway for  
Heating, Air-conditioning, Ventilation, and Refrigeration  
Mechanical Trades  
Plumbing  
Carpentry**

**Suggested High School Courses**

<b>Suggested High School Courses</b>			
9 <sup>th</sup>	<b>Core Academic Courses*:</b>	English I, Algebra I, Biology or Environmental Science, State History/Civics	<b>Suggested Electives:</b> Computer Applications
	<b>Career Path Courses:</b>	Computer Applications	
10 <sup>th</sup>	<b>Core Academic Courses*:</b>	English II, Geometry, Biology, US History, Foreign Language I	<b>Suggested Electives:</b> Electrical Wiring and Applications
	<b>Career Path Courses:</b>	Metal Fabrication Introduction to the Building Environment	
11 <sup>th</sup>	<b>Core Academic Courses*:</b>	English III, Algebra II/ or other, Chemistry	<b>Suggested Electives:</b> Principles of Technology
	<b>Career Path Courses:</b>	Principles of Maintenance Operations, Safety, Health in the Workplace Environment	
12 <sup>th</sup>	<b>Core Academic Courses*:</b>	English IV, Trigonometry or other Math, Physics or other lab based science	<b>Suggested Electives:</b> Principles of Technology
	<b>Career Path Courses:</b>	Applications in Maintenance Operations	


**Secondary to Postsecondary Linkages & Contacts**

**Postsecondary Credit Options:**

ENY 101 Introduction to Energy Technology; ENY 205 Green Building

**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](mailto:ernie.navarette@rrcc.edu).

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

	<p><b>Pathway: Renewable Energy Technology</b></p>	<p><b>Plan of Study: Solar/Thermal Installation/Energy Auditing</b></p>
<p><b>Career Goal (O*Net Code):</b> (Click the code to access education, skills, and employment outlook information)</p> <p><a href="#">49-9021.00</a> Heating, Air Conditioning, and Refrigeration Mechanics and Installers</p> <p><a href="#">47-2211.00</a> Sheet Metal Workers</p> <p><a href="#">47-2152.02</a> Plumbers</p> <p><a href="#">47-4011.00</a> Plumbers, Pipefitters, and Steamfitters</p> <p><a href="#">47-4011.00</a> Construction and Building Inspectors</p> <p><a href="#">47-2031.00</a> Carpenters</p> <p><a href="#">47-2031.01</a> Construction Carpenters</p> <p><a href="#">47-2031.02</a> Rough Carpenters</p> <p><a href="#">49-9098.00</a> Helpers—Installation, Maintenance, and Repair Workers</p> <p>* - High Demand Career</p>		<p><b>Relevant Occupational Experience (Your Life Experiences may be worth College Credit!):</b></p> <p><a href="#">CCCS Credit for Prior Learning Guide</a> Contact Larry Snyder (<a href="mailto:larry.snyder@rrcc.edu">larry.snyder@rrcc.edu</a>) for inquiries concerning earning college credit for life experience in HVAC, Mechanical Trades, Plumbing, or Carpentry.</p> <p><a href="#">Colorado Labor Market Information</a></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)	Level I Refrigeration	10.5	\$1,379	Service Technician, Heating, Ventilation, Air Conditioning Service Technician , Air Conditioning Technician, Heating, Ventilation, Air Conditioning Mechanic , HVAC Installer; Plumber, Journeyman Plumber,	\$ - \$\$\$
	Level II Refrigeration	22.5	\$2919		
	HVAC Fundamentals	14.5	\$1893		
	Air Conditioning	34.5	\$4459		
	Refrigeration	30.5	\$3946		
	HVAC Controls Tech	21.5	\$2791		
	Forced-Air Heating	33.5	\$4330		
	Hydronic Heating	37.5	\$4844		
	HVAC Energy Efficiency	21.5	\$2791		

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	<p>Energy and HVAC Advanced Plumbing                  Basic Mechanical Skills                  Advanced Mechanical Skills                  Heating Specialties                  Residential Remodeling (carpentry)                  Advanced Remodeling (carpentry)                  Home Energy Efficiency (carpentry)</p>	<p>37.5 18 23 39 37 20.5 31.5 20.5</p>	<p>\$4844 \$2342 \$2983 \$5036 \$4780 \$2662 \$4074 \$2662</p>	<p>Drain Technician, Plumber Gasfitter, Plumbing and Heating Mechanic, Residential Plumber, Service Plumber, Commercial Plumber; Building Maintenance, Carpenter, Lead Carpenter, Assembler, Finish Carpenter, Construction Worker, Custom Stair Builder, Installer, Production Worker, Trim Carpenter, Concrete Carpenter, Building Inspector, Engineering Technician, Construction Inspector, Engineer, Associate Architect, Inspector, Plumbing Inspector, Building Code Administrator, Building Mechanical Engineer, Building Official</p>	
Associate Degree(s)	<p>Heating, Air Conditioning, Ventilation, and Refrigeration                  Air Conditioning                  Refrigeration                  Hydronic Heating                  Mechanical Trades</p>	<p>60.5-62.5 credits (4 sem)</p>	<p>Approximately \$7800</p>	<p>Service Technician, Heating, Ventilation, Air Conditioning Service Technician, Air Conditioning Technician, Heating, Ventilation, Air Conditioning Mechanic, HVAC Installer; Plumber, Journeyman Plumber, Drain Technician, Plumber Gasfitter, Plumbing and Heating Mechanic, Residential Plumber, Service Plumber, Commercial Plumber; Building Maintenance, Carpenter, Lead Carpenter, Assembler,</p>	<p>\$ - \$\$\$</p>

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				Finish Carpenter, Construction Worker, Custom Stair Builder, Installer, Production Worker, Trim Carpenter, Concrete Carpenter, Building Inspector, Engineering Technician, Construction Inspector, Engineer, Associate Architect, Inspector, Plumbing Inspector, Building Code Administrator, Building Mechanical Engineer, Building Official	
Articulation Opportunities to Advanced Degrees:					
Advanced Degree(s)	Bachelor's Degree: Management/Business emphasis	120+ credits or 8 or more semesters	Regis University <a href="http://www.transfertoregis.org/co/rrcc/">http://www.transfertoregis.org/co/rrcc/</a>	HVAC/Plumbing Business Owner	\$ - \$\$\$\$
	Graduate Degree: N/A	Bachelor's Degree + 30 or more graduate level credits	<a href="http://www.collegeincolorado.org">www.collegeincolorado.org</a>		\$-\$ \$\$\$\$
	<a href="#">College Tuition Comparison Guide</a>				

**Extended Learning Experiences**

**Support Structures:**

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

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**Financial Aid:**

*Federal Student Loans, Pell Grant, RRCC Foundation Grant*

**Professional Affiliations**

**Practical Learning Experiences:**

State of the Art HVAC Technology Lab; Internships, Apprenticeships

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. 6<sup>th</sup> Ave., Lakewood, CO 80228

\*\*\* *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)