

# Warren Tech Central Concurrent Enrollment Courses

<b>Small Business Start-up</b>		
High School Instructor : Laurel Himes		
Plans of Study: <a href="http://www.rccc.edu/business/degrees-certificates">http://www.rccc.edu/business/degrees-certificates</a>		
Course	Description	Credits
<b>SBM 101</b>  <i>Spring Enrollment</i>	<b>Starting a Small Business</b>  Provides a brief overview of various topics related to starting a small business. Some topics are types of businesses, location, image, insurance, permits, and licenses.  <b>Prerequisites: N/A</b>	1
<b>BUS 118</b>  <i>Spring Enrollment</i>	<b>Business Survival Skills</b>  Provides an overall perspective for the student to understand the current domestic and world business environment and how the student as an employee fits into that environment. Roles and responsibilities of the business and the employees will be studied especially as they relate to alternatives for increasing positive impact in the workplace. The focus will be on practical skills application.  <b>Prerequisites: N/A</b>	3
<b>Automotive Collision Repair</b>		
<p>(In cooperation with and taught at WarrenTech) This is a Nationally Certified Auto Collision Repair program that uses the I-CAR live curriculum with the primary purpose of preparing you for careers in the auto collision industry. You can also achieve the necessary credits to obtain an associate degree. A minimum of 45 ACT credits and 15 general education credits are required for the AAS degree. Some courses may transfer to a bachelor's degree in automotive management. Students must comply with personal and environmental safety practices in accordance with local, state, and federal safety and environmental regulations.</p>		
<b>High School Instructor: James Porter</b> <b>Fall and Spring Enrollment</b>		

Prerequisite: N/A

Plans of Study: <http://www.rrcc.edu/warrentech/auto-service-collision-customization/auto-collision-technology-degrees-certificates>

Course	Description	Credits
ACT 101	Introduction to Automotive Collision Tech.	4
ACT 110	Safety in Collision Repair	2
ACT 111	Metal Welding and Cutting	2
ACT 121	Non-Structural Repair Preparation	3
ACT 122	Panel Repair & Replacement	3
ACT 123	Metal Finishing & Body Filling	3
ACT 124	Exterior Panel Replacement (Weld-on)	3
ACT 131	Structural Damage Diagnosis	3
ACT 132	Structural Damage Repair	3
ACT 141	Refinishing Safety	1
ACT 142	Surface Preparation I	2
ACT 143	Spray Equipment Operation	2
ACT 144	Refinishing I	2
ACT 151	Plastics & Adhesives I	1
ACT 170	Automotive Collision Technology Lab Exp. I	3
ACT 171	Automotive Collision Technology Lab Exp. II	3
ACT 172	Automotive Collision Technology Lab Exp. III	3
ACT 180	Auto Collision Repair Internship Level I	2
ACT 205	Estimating & Shop Management	3
ACT 211	Metal Welding & Cutting II	2
ACT 226	Production	4
ACT 231	Advanced Structural Damage Diagnosis & Repair	3
ACT 232	Fixed Glass Repair	2
ACT 241	Paint Defects	3
ACT 242	Surface Preparation II	2
ACT 243	Refinishing II	2
ACT 244	Final Detail	2
ACT 132	Structural Damage Repair	3

## Automotive Customization

(In cooperation with and taught at WarrenTech)

This two-year program is designed to give students basic and advanced skill training needed for successful entry into the automotive customizing and refinishing industry through theory and lab experiences. Coursework can be applied towards an Associate of Applied Science Degree (AAS) or certificate.

**High School Instructor: Steve Erickson**  
**Fall and Spring Enrollment**

**Plans of Study: <http://www.rcc.edu/warrentech/auto-service-collision-customization/automotive-customization-degree-certificates>**

Course	Description	Credits
ACT 101	Introduction to Automotive Collision Tech.	4
ACT 110	Safety in Collision Repair	2
ACT 111	Metal Welding/Cutting	3
ACT 122	Panel Repair & Replacement	3
ACT 123	Metal Finishing/Body Filling	3
ACT 141	Refinishing Safety	1
ACT 142	Surface Prep I	2
ACT 143	Spray Equipment Operation	2
ACT 144	Refinishing I	2
ACT 160	Custom Paint	3
ACT 161	Auto Graphics & Design	3
ACT 162	Auto Air Brushing and Murals	3
ACT 163	Auto Special Effects & Refinishing	3
ACT 165	Auto Body Customizing I	3
ACT 166	Auto Body Customizing II	3
ACT 167	Auto Customizing II	3
ACT 170	Automotive Collision Technology Lab. Exp. I	3
ACT 171	Auto Collision Technical Lab Exp. II	1
ACT 172	Auto Collision Technical Lab Exp. III	3
ACT 205	Estimating and Shop Management	3
ACT 211	Metal Welding/Cutting II	2
ACT 243	Refinishing II	2

<b>AUT 109</b>	<b>High Performance Suspension &amp; Chassis Design</b>	<b>2</b>
<b>AUT 110</b>	<b>High Performance Suspension &amp; Chassis Set-up</b>	<b>4</b>
<b>AUT 116</b>	<b>High Performance Brake Systems</b>	<b>2</b>
<b>AUT 125</b>	<b>Engines I</b>	<b>4</b>
<b>AUT 136</b>	<b>Intro to Racecar Body Fab.</b>	<b>2</b>
<b>AUT 137</b>	<b>Intro to Racecar Chassis Fab.</b>	<b>2</b>
<b>ASE 102</b>	<b>Introduction to the Automotive Shop</b>	<b>2</b>
<b>ASE 120</b>	<b>Basic Auto Electricity</b>	<b>2</b>
<b>ASE 130</b>	<b>General Engine Diagnosis</b>	<b>2</b>

**Automotive Technology**

(In cooperation with and taught at WarrenTech)

This program is a nationally certified automotive repair program (NATEF) which provides you with entry-level skills in the automotive industry or upgrading for those currently in the field. Demonstrated mastery of skills is required and all tasks must be completed to satisfy industry standards. All automotive (ASE) courses are held at the WarrenTech automotive classroom/lab. The instructors are ASE Certified Master Technicians. Coursework can be applied towards an Associate of Applied Science Degree (AAS) or certificate.

**High School Instructor: Kelly Hebert  
Fall and Spring Enrollment**

**Plans of Study: <http://www.rrcc.edu/warrentech/auto-service-collision-customization/automotive-service-technology-degrees-certificates>**

<b>Course</b>	<b>Description</b>	<b>Credits</b>
<b>ASE 101</b>	<b>Auto Shop Orientation</b>	<b>2</b>
<b>ASE 102</b>	<b>Intro to Auto Shop</b>	<b>2</b>
<b>ASE 110</b>	<b>Brakes I</b>	<b>2</b>
<b>ASE 111</b>	<b>Automotive Brake Service II</b>	<b>2</b>
<b>ASE 210</b>	<b>Automotive Power and ABS Brake Systems</b>	<b>2</b>
<b>ASE 140</b>	<b>Suspension and Steering I</b>	<b>2</b>
<b>ASE 141</b>	<b>Suspension and Steering II</b>	<b>2</b>
<b>ASE 240</b>	<b>Suspension and Steering III</b>	<b>2</b>
<b>ASE 264</b>	<b>Introduction to Automotive Heating &amp; AC</b>	<b>1</b>
<b>ASE 265</b>	<b>Automotive Heating and Air Conditioning</b>	<b>5</b>
<b>ASE 150</b>	<b>Manual Drive Train and Axle Maintenance</b>	<b>2</b>

ASE 151	Automotive Manual Transmission/Transaxles & Clutches	2
ASE 152	Manual Transmission, Transaxles and Clutches II	2
ASE 153	Automotive Drive Axle Overhaul	1
ASE 154	Manual Trans/Axle Diagnosis and Repair	1
ASE 250	Auto Trans/Transaxle Service	1
ASE 251	Auto Trans/Transaxle Diagnosis	3
ASE 252	Advanced Automatic Trans/Transaxles	2
ASE 130	General Engine Diagnosis	2
ASE 134	Automotive Fuel and Emissions Systems I	2
ASE 231	Computers & Ignition Systems	2
ASE 233	Fuel Injection/ Exhaust	4
ASE 235	Drivability and Diagnosis	2
ASE 120	Basic Automotive Electricity	2
ASE 110	Brakes I	3
ASE 120	Basic Automotive Electricity	2
ASE 122	Automotive Electricity Safety Systems	1
ASE 123	Starting and Charging Systems	2
ASE 221	Automotive Body Electrical	4
ASE 160	Engine Removal & Install	2
ASE 162	Automotive Engine Service	2
ASE 201	Automotive Parts Management I	1
ASE 203	Automotive Parts Management II	1
ASE 170	Lab Experience I	1
ASE 171	Lab Experience II	1

### Culinary Arts

Successful completion of the three courses listed below will lead to an Introduction to Culinary Arts Certificate.

High School Instructors : Joachim Schaaf and David Bochmann

Plans of Study: [www.rccc.edu/culinary/degree-and-certificate](http://www.rccc.edu/culinary/degree-and-certificate)

Course	Description	Credits
CUA 101	Food Safety and sanitation	2
<i>Spring</i>	Covers the basic rules of sanitation, food-borne illnesses, safe food	

<i>Enrollment</i>	temperatures, safe food-handling techniques, the HACCP Program, pest control procedures, and local/state health rules and regulations for food service operations. At the completion of the course, students will take a nationally recognized test from the Education Foundation of the National Restaurant Association. If passed with a score of 75% or more, the student will receive a Certificate of Completion from the Education Foundation.  <b>Prerequisites: NA</b>	
<b>CUA 121</b>  <i>Spring Enrollment</i>	<b>Introduction to Food Production Principles and Practices</b>  Provides students with the fundamental principles of commercial kitchen operations, including safety and sanitation applications, use and care of equipment, tools, utensils and knives, recipe use and conversion, organization of work, and basic cooking methods.  <b>Prerequisites: NA</b>	1
<b>CUA 157</b>  <i>Spring Enrollment</i>	<b>Menu Planning</b>  Introduces students to Planning menus and integrating them into foodservice operations. Equips the student with a working knowledge of the function, mechanics, and results achieved by the menu, providing an overview of the existing and growing food service industry as seen through the menu.  <b>Prerequisites: NA</b>	3

**Hairstyling**

(In cooperation with and taught at Warren Tech)

The Cosmetology Program is designed to develop the skills necessary for entry-level employment in areas of hairstylist, esthetics (esthetician-skin care), and nail technology (manicurist). Coursework can be applied towards an Associate of Applied Science Degree (AAS) or certificate.

**High School Instructor: Judy Maciel**  
**Fall and Spring Enrollment**  
**Prerequisite: N/A**

**Plans of Study: <http://www.rrcc.edu/warrentech/cosmetology>**

Course	Description	Credits
<b>COS 103</b>	<b>Shampoo/Rinses/Conditioners I</b>	1
<b>COS 130</b>	<b>Intro to Hair Styling</b>	2

<b>COS 120</b>	<b>Intro to Haircutting</b>	<b>2</b>
<b>COS 140</b>	<b>Intro to Chemical Texture</b>	<b>1</b>
<b>COS 110</b>	<b>Intro to Hair Coloring</b>	<b>2</b>
<b>COS 160</b>	<b>Intro to Disinfection, Sanitation and Safety</b>	<b>2</b>
<b>COS 250</b>	<b>Management, Ethics, Interpersonal Skills &amp; Sales</b>	<b>1</b>
<b>COS 150</b>	<b>Laws, Rules and Regulations</b>	<b>1</b>
<b>COS 131</b>	<b>Intermediate I: Hair Styling</b>	<b>2</b>
<b>COS 121</b>	<b>Intermediate I: Hair Cutting</b>	<b>2</b>
<b>COS 141</b>	<b>Intermediate I: Chemical Texture</b>	<b>1</b>
<b>COS 203</b>	<b>Shampoo/Rinses/Conditioners II</b>	<b>1</b>
<b>COS 111</b>	<b>Intermediate I: Hair Coloring</b>	<b>2</b>
<b>COS 161</b>	<b>Intermediate I: Disinfection, Sanitation &amp; Safety</b>	<b>1</b>
<b>COS 230</b>	<b>Intermediate II: Hair Styling</b>	<b>2</b>
<b>COS 220</b>	<b>Intermediate II: Hair Cutting</b>	<b>2</b>
<b>COS 240</b>	<b>Intermediate II: Chemical Texture</b>	<b>1</b>
<b>COS 210</b>	<b>Intermediate II: Hair Coloring</b>	<b>2</b>
<b>COS 260</b>	<b>Intermediate II: Disinfection, Sanitation &amp; Safety</b>	<b>2</b>
<b>COS 231</b>	<b>Advanced Hair Styling</b>	<b>1</b>
<b>COS 211</b>	<b>Advanced Hair Coloring</b>	<b>2</b>
<b>COS 241</b>	<b>Advanced Chemical Texture</b>	<b>1</b>
<b>COS 221</b>	<b>Advanced Hair Cutting</b>	<b>2</b>
<b>COS 261</b>	<b>Advanced Disinfection, Sanitation and Safety</b>	<b>1</b>
<b>COS 262</b>	<b>Advanced II: Disinfection, Sanitation and Safety</b>	<b>3</b>

### **Esthetics**

(In cooperation with and taught at Warren Tech)

The Cosmetology Program is designed to develop the skills necessary for entry-level employment in areas of hairstylist, esthetics (esthetician-skin care), and nail technology (manicurist). Coursework can be applied towards an Associate of Applied Science Degree (AAS) or certificate.

**High School Instructor: Vicki Flower**  
**Spring Enrollment**  
**Prerequisite: N/A**

**Plans of Study: <http://www.rrcc.edu/warrentech/cosmetology>**

Course	Description	Credits
EST 110	Introduction to Facials and Skin Care	3
EST 111	Intermediate Facials and Skin Care	2
EST 160	Introduction to Disinfection, Sanitation & Safety	2
EST 161	Intermediate Disinfection, Sanitation and Safety	3
EST 210	Advanced Skin Care and Massage	2
EST 211	Facial Make-Up	1
EST 212	Hair Removal	3
EST 260	Advanced Disinfecting, Sanitation and Safety	2
COS 150	Laws, Rules and Regulations	1
COS 250	Mgmt, Ethics, Interpersonal Skills & Salesmanship	1

### Fire Science

Coursework completed with a grade of C or better may be applied towards the Fire Science Associate of Applied Science Degree or certificate. This program of study is designed for students new to or preparing for the fire service. Students must earn a C or higher in all fire science and general education courses to graduate.

**High School Instructor: Tim Vaninger**

**Plans of Study: <http://www.rrcc.edu/fire-science/fire-fighter-one-academy>**

Course	Description	Credits
FST 102	<p><b>Principles of Emergency Services</b></p> <p>Introduces the fire service organization and operation from past to present operations. It includes operation and organization of federal, state, local and private protection forces. The course emphasizes extinguishing methods and equipment, special extinguishing agents, and special hazard considerations. It serves as a prerequisite for students with no previous fire suppression training or experience.</p> <p><b>Prerequisites:</b></p> <p>ACT: English 18  SAT: Verbal 440  Accuplacer: Sentence Skills 95 or higher</p>	3



<b>FST 160</b>	<p><b>Candidate Physical Abilities Test Prep Course</b></p> <p>Prepares students for the job of a firefighter as well as the testing requirements to test for CPAT. The tools for all classes will be fire service tools, such as, sledge hammer, hose, nozzle, ladders, pike pole, power saws, and rescue dummy. The course will include the basic fire skills of rescue, hose lay, equipment movement, ladder raise and extend, forcible entry, search, and ceiling breach. This course also includes aerobic and strength training to assist student with passing CPAT.</p> <p><b>Prerequisite: N/A</b></p>	3
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**Precision Machining**

(In cooperation with and taught at WarrenTech)

This program is designed to develop the skills necessary for entry-level employment in the machining industry. Entry-level skills in fabrication and plastic parts that meet industrial standards will be taught. Coursework can be applied towards an Associate of Applied Science Degree (AAS) or certificate.

**High School Instructor: Joe Martin**  
**Fall and Spring Enrollment**  
**Prerequisite: N/A**

**Plans of Study: <http://www.rrcc.edu/precision-machining>**

Course	Description	Credits
MAC 101	<b>Intro to Machine Shop</b>	3
MAC 102	<b>Blueprint Reading</b>	3
MAC 110	<b>Intro to Engine Lathe</b>	3
MAC 111	<b>Intermediate Engine Lathe</b>	3
MAC 120	<b>Introduction to Milling Machine</b>	3
MAC 121	<b>Intermediate Milling Machine</b>	3
MAC 201	<b>Intro to CNC Turning Operations</b>	3
MAC 205	<b>Intro to CNC Milling Operations</b>	3
MAC 250	<b>Advanced Inspection Techniques</b>	3
MAC 252	<b>Practical Metallurgy</b>	3
MAC 130	<b>Horizontal Mill Set-up &amp; Operations</b>	3
MAC 141	<b>Conventional Lathe Operations</b>	4

MAC 141	<b>Advanced Machining Operations</b>	4
MAC 145	<b>Production Manufacturing</b>	3
MAC 202	<b>CNC Turning Operations II</b>	3
MAC 206	<b>CNC Milling Operations II</b>	3
MAC 245	<b>CAD/CAM 3D</b>	3
EGT 205	<b>Geometric Dimensioning and Tolerance</b>	3

**TV/Video Production**

Coursework completed with a grade of C or better may be applied towards a variety of Multimedia Graphic Design Associate of Applied Science (AAS) degrees and certificates, such as the Video Production AAS Degree.

**High School Instructor: Jon White  
Spring Enrollment**

**Plans of Study:** [www.rccc.edu/multimedia/degrees-and-certificates](http://www.rccc.edu/multimedia/degrees-and-certificates)

<b>Course</b>	<b>Description</b>	<b>Credits</b>
<b>MGD 101</b>	<p><b>Introduction to Computer Graphics</b></p> <p>Introduces computer systems developed for graphics. You will learn hardware and software components used in multimedia production and explore basic computer operations, file management, scanning techniques, archiving capabilities, and utilization of the multimedia department server and Internet connection.</p> <p><b>Prerequisites: N/A</b></p>	3
<b>MGD 104</b>	<p><b>Videography</b></p> <p>Introduces to the principles and techniques of video production, including camera operation, basic script writing, lighting, basic sound, and basic digital editing. Examination of pre-production, production, and post-production processes, as well as aesthetics, are included.</p> <p><b>Prerequisites: N/A</b></p>	3
<b>MGD 164</b>	<p><b>Digital Video Editing: Apple Final Cut Studio</b></p> <p>Introduces digital, non-linear video editing. You will capture, compress, edit, and manipulate video images using a personal computer. Assembly techniques including media management, editing tools, titles, and motion control, transitions and filters, and special effects are explored. This</p>	3

	software is available only for the Mac Platform.  <b>Prerequisites: N/A</b>	
<b>Graphic Design</b>		
Coursework completed with a grade of C or better may be applied towards a variety of Multimedia Graphic Design Associate of Applied Science (AAS) degrees and certificates.		
<b>High School Instructor: Peter Cunis and Scot Odendahl</b>		
<b>Plans of Study:</b> <a href="http://www.rccc.edu/multimedia/degrees-and-certificates">www.rccc.edu/multimedia/degrees-and-certificates</a>		
Course	Description	Credits
<b>MGD 101</b>	<b>Intro to Graphic Design</b>  Introduces computer systems developed for graphics. You will learn hardware and software components used in multimedia production and explore basic computer operations, file management, scanning techniques, archiving capabilities, and utilization of the multimedia department server and Internet connection. <b>Prerequisites: N/A</b>	3
<b>MGD 111</b>	<b>Adobe Photoshop I</b>  Concentrates on the high-end capabilities of Adobe's industry standard photo-editing software as an illustration, design, and photo retouching tool. You will explore a wide range of selection and manipulation techniques applied to photos, graphics, and videos. Design concepts also are explored in this class. <i>Recommended Prerequisite: MGD 101 or MGD 102 and basic computer skills.</i>  <b>Prerequisites: N/A</b>	3
<b>MGD 112</b>	<b>Adobe Illustrator I</b>  Acquaints you with the industry standard vector drawing program. You will learn to use vector-based tools to create digital artwork used in Web design, print media, and digital screen design. Design concepts also are explored in this class. <i>Recommended Prerequisites: MGD 101 or MGD 102 and basic computer skills.</i>  <b>Prerequisites: N/A</b>	3
<b>MGD 114</b>	<b>Adobe InDesign</b>  Introduces you to InDesign, an industry standard page layout program which integrates seamlessly with other Adobe Creative Suite programs.	3

	InDesign delivers creative freedom and productivity to page layout and production. Class discussions and independent projects supplement hands-on classroom work.	
	<b>Prerequisites: N/A</b>	

**Nail Technology**

(In cooperation with and taught at WarrenTech)

The Cosmetology Program is designed to develop the skills necessary for entry-level employment in areas of hairstylist, esthetics (esthetician-skin care), and nail technology (manicurist).

**High School Instructor: Michelle Montoya**  
**Spring Enrollment**

**Plans of Study:** [www.rccc.edu/warrentech/cosmetology](http://www.rccc.edu/warrentech/cosmetology)

Course	Description	Credits
COS 150	Laws, Rules and Regulations	1
COS 160	Intro to Disinfection, Sanitation and Safety	2
COS 161	Intermediate I: Disinfection, Sanitation & Safety	1
COS 250	Management, Ethics, Interpersonal Skills & Salesmanship	1
COS 260	Intermediate II: Disinfection, Sanitation & Safety	2
NAT 110	Introduction to Manicures and Pedicures	3
NAT 111	Intermediate Manicures and Pedicures	2
NAT 210	Advanced Manicures and Pedicures	2
COS 261	Advanced Disinfection, Sanitation/Safety	1
NAT 211	Application of Artificial Nails	5

**Welding**

(In cooperation with and taught at WarrenTech) This program is designed to develop the skills necessary for entry-level employment in the welding industry. Entry-level welder certification from the American Welding Society may be earned upon completion of the program. Coursework may be applied towards Associate of Applied (AAS) degree or certificate.

**High School Instructor: Tom Kienbaum**  
**Fall and spring enrollment**

**Prerequisite: N/A**

**Plans of Study:** [www.rccc.edu/warrentech/welding](http://www.rccc.edu/warrentech/welding)

<b>Course</b>	<b>Description</b>	<b>Credits</b>
<b>WEL 100</b>	<b>Safety for Welders</b>  Covers the hazards of welding on health and safety, locating essential safety information from a code or other standard, and identifying and applying shop safety procedures.	1
<b>WEL 101</b>	<b>Allied Cutting Process</b>  Covers setting up equipment and performing cutting and gouging operations utilizing the oxyacetylene, air carbon arc, and plasma arc cutting processes. This course will also provide an introduction to blueprint reading.	4
<b>WEL 102</b>	<b>Oxyacetylene Joining Processes</b>  Introduces safety inspections, minor repairs, operating parameters, oxyacetylene welding equipment, and oxyacetylene welding, brazing, and soldering operations. Blueprint reading skills will be practiced in this course.	4
<b>WEL 103</b>	<b>Basic Shielded Metal Arc Welding</b>  Covers performing safety inspections, making minor repairs, adjusting operating parameters, and operating SMAW equipment utilizing E-6010 and E-7018 electrodes. Layout procedures and practices will also be introduced.	4
<b>WEL 110</b>	<b>Advanced Shielded Metal Arc Welding</b>  Covers safety inspections, minor repairs, operating parameters, operation of SMAW equipment, and SMAW operations on groove and fillet welds utilizing E-6010 and E-7018 electrodes. Layout procedures will be practiced during this course.	4
<b>WEL 124</b>	<b>Intro to Gas Tungsten Arc Welding</b>  Covers welding in all positions and on various joint configurations using the GTAW (tig) welding process on carbon steel, stainless steel and aluminum. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints, and safety in the welding industry.	4
<b>WEL 201</b>	<b>Gas Metal Arc Welding I</b>  Covers safety inspections, minor repairs, operating	4

	parameters, operation of GMAW equipment on plain carbon steel utilizing short circuit and spray transfer, and fundamental metallurgy principles.	
<b>WEL 202</b>	<b>Gas Metal Arc Welding II</b>  Covers safety inspections, minor repairs, operating parameters, operation of GMAW equipment utilizing a variety of electrodes and base metals, and fundamental principles of welding metallurgy to welding, fabrication, and inspection.	4
<b>WEL 203</b>	<b>Flux Cored Arc Welding I</b>  Covers safety inspections, minor repairs, operating parameters, operation of FCAW equipment utilizing self-shielded wire, and principles of joint design, preparation, and material selection to welding operations.	4
<b>WEL 204</b>	<b>Flux Cored Arc Welding II</b>  Covers safety inspections, minor repairs, operating parameters, operating FCAW equipment utilizing gas shielded wire, and applying fundamentals of welding applications and cost estimating to welding, fabrication, and inspection.	4
<b>WEL 224</b>	<b>Advanced Gas Tungsten Arc Welding</b>  Covers welding in all positions on carbon steel, stainless steel and aluminum plate and carbon steel pipe with the GTAW process. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints, and safety in the welding industry.	4
<b>WEL 250</b>	<b>Layout and Fabrication</b>  Develops welding and associated skills in the use of drawings and blueprints in planning. Includes designing and layout projects.	4

**NASA/HUNCH-STEM  
Sustainable Design and Build**

Coursework completed may be applied toward the RRCC Renewable Energy and Engineering Graphics Technology Associate of Applied Science (AAS) Degrees or certificates.

**High School Instructors: Nate Olsen and Matthew Brown (Lakewood HS)  
Fall and spring enrollment**

**Plans of Study:**

[www.rrcc.edu/stem](http://www.rrcc.edu/stem)  
[www.rrcc.edu/renewable-energy](http://www.rrcc.edu/renewable-energy)  
[www.rrcc.edu/engineering-graphics-technology](http://www.rrcc.edu/engineering-graphics-technology)

<b>Course</b>	<b>Description</b>	<b>Credits</b>
<b>ENV 101</b>	<b>Environmental Science</b>  Introduction to Energy Technologies Introduces the energy technologies in use today and those that are in the research stage as possible alternatives. The course presents technologies including active solar heating, passive solar heating, wind energy systems, biomass, photovoltaic, co-generation, low and high head hydro, hydrogen, geothermal, power towers and energy storage systems.  <b>Prerequisites: N/A</b>	3
<b>CAD 101</b>	<b>Computer Aided Drafting I</b>  Focuses on basic computer-aided drafting skills using the latest release of CAD software. The course includes file management, Cartesian coordinate system, drawing set-ups, drawing aids, layer usage, drawing geometric shapes, editing objects, array, text applications, basic dimensioning, and Help access.  <b>Prerequisites: N/A</b>	3
<b>CAD 102</b>	<b>Computer Aided Drafting II</b>  Focuses on advanced computer aided drafting skills using the latest release of CAD software. Includes blocks and wblocks, polylines, multilines, polyline editing, advanced editing, editing with grips, hatching, isometric drawings, dimensions and dimension variables, paper space and viewports, templates, external references, and printing/plotting.  <b>Prerequisites: N/A</b>	3
<b>OSH 127</b>	<b>10 Hr. Construction Industry Standards</b>  <b>Prerequisites: N/A</b>	1

<b>AEC 101</b>	<p><b>Basic Architectural Drafting</b></p> <p>Introduces the student to basic architectural drafting techniques. Topics explored in lecture and through project work include: use of instruments, geometric construction, multiview, oblique and isometric projections, and basic construction drawings.</p> <p><b>Prerequisites: N/A</b></p>	4
<b>AEC 102</b>	<p><b>Residential Construction Draw</b></p> <p>Introduces the student to basic architectural drafting techniques. Topics explored in lecture and through project work include: use of instruments, geometric construction, multiview, oblique and isometric projections, and basic construction drawings.</p> <p><b>Prerequisites: N/A</b></p>	4
<b>CAD 202</b>	<p><b>Computer Aided Drafting 3D</b></p> <p>Focuses on construction of three-dimensional objects using the latest release of CAD software. Includes mesh modeling, surface modeling, solid modeling, extrusions, Boolean operations, 3D editing, 3D views, rendering, materials and advanced lighting, walkthrough and flyby animations and 3D Solids to 2D Layouts</p> <p><b>Prerequisites: N/A</b></p>	3
<b>CAD 262</b>	<p><b>3D Printing</b></p> <p>Provides the student with the ability to blend the virtual and real design worlds together through the use of 3D Scanning, 3D CAD Modeling, and 3D Printing.</p> <p><b>Prerequisites: N/A</b></p>	3
<b>CAR 170</b>	<p><b>Construction Lab</b></p> <p><b>Prerequisites: N/A</b></p>	1-6

**Power Equipment and Motorcycle**

Coursework completed with a grade of C or better may be applied towards the Power Equipment and Motorcycle Associate of Applied Science (AAS) degree or certificate.



(In cooperation with and taught at Warren Tech)

This two-year program is designed to provide students with the basic and advanced skill training as needed for successful entry to the power and sport vehicle industry. Coursework can be applied towards an Associate of Applied Science (AAS) degree or certificates.

**High School Instructor: Ed Baumguard**  
**Fall and Spring Enrollment**

**Plans of Study:** [www.rccc.edu/warrentech/power-equipment-sport-vehicle-technology](http://www.rccc.edu/warrentech/power-equipment-sport-vehicle-technology)

*Program currently under revision*

<b>Course</b>	<b>Description</b>	<b>Credits</b>
PVT 100		2
PVT 105		2
PVT 110		4
PVT 120		4
PVT 130		4
PVT 140		4
PVT 150		4
PVT 210		4
PVT 220		4
PVT 230		4
PVT 235		4
PVT 240		4
PVT 250		4

### **Dental Assisting**

(In cooperation with and taught at Warren Tech) Concurrent Enrollment students can earn college credit for the following courses. Skills learned include dental anatomy, dental procedures, laboratory techniques, X-Ray Techniques, patient care, chair-side techniques and sterilization and disinfection and prepare the student for the workforce.

**High School Instructor: Cindee Ball**  
**Spring Enrollment**

<b>Course</b>	<b>Description</b>	<b>Credits</b>
<b>DEA 104</b>	<b>Specialties in Dentistry</b>	2

	<p>Focuses on armamentarium of specific tray set-ups for periodontics, endodontics, and fixed and removable prosthodontics. Examines pediatric dentistry, oral surgery, and implants. Includes diagnosis, treatment, and the dental assistant's role in each specialty.</p> <p>Prerequisite: N/A</p>	
<b>DEA 126</b>	<p><b>Infection Control</b></p> <p>Includes basic information concerning infection and disease transmission in the dental office. Emphasizes knowledge of microorganisms, with an emphasis on aseptic techniques, sterilization, and hazardous communication management.</p> <p>Prerequisite: N/A</p>	3
<b>DEA 134</b>	<p><b>Prevention and Nutrition in Dentistry</b></p> <p>Includes techniques in preventive dentistry, with an emphasis on fluoride application and oral home-care instruction. Includes nutrition as it applies to dental health and diet counseling. Covers techniques for coronal polishing.</p> <p>Prerequisite: N/A</p>	3
<b>DEA 120</b>	<p><b>Intro to Dental Practice</b></p> <p>Includes roles and responsibilities of the dental health team; educational background for the various specialties, including general practitioner, hygienist, and dental assistant; history; legal implications; ethical responsibilities; and the role of professional organizations.</p> <p>Prerequisite: N/A</p>	1

### Introduction to Outdoor Education Certificate

The Outdoor Education program provides a well-rounded outdoor education experience and a

high degree of training specific to employment within the outdoor industry. Warren Tech students who successfully complete the courses listed below will receive the Outdoor Education Certificate or can apply the credits earned towards an Associate of Applied Science Degree in Outdoor Education.

**High School Instructor: Peter Nelson  
Spring Enrollment**

**Plans of Study:** [www.rccc.edu/outdoor-education/degree-and-certificate](http://www.rccc.edu/outdoor-education/degree-and-certificate)

Course	Description	Credits
<b>HWE 129</b>	<p><b>Wilderness First Responder</b></p> <p>Provides students with those skills and emergency medical care techniques used by guides, trip leaders, and others providing primary care in backcountry settings. Students will be able to respond correctly to those medical and trauma situations commonly encountered when entry into the EMS system is delayed or unlikely.</p> <p><b>Prerequisite:</b> ACT: English 18 SAT: Verbal 440 Accuplacer: Sentence Skills 95</p>	4
<b>PRA 218</b>	<p><b>Outdoor Leadership</b></p> <p>Enables the student to develop, acquire and apply outdoor leadership skills and knowledge. Exposes students to the latest information, philosophy, and techniques necessary to safely conduct outdoor programs and expeditions as an outdoor leader. Skills are applied under actual field conditions. Emphasizes on minimum impact camping, wilderness ecology, judgment, decision making, group dynamics, and trip logistics. These skills enhance the effectiveness of the student as a professional outdoor leader.</p>	3
<b>OUT 134</b>	<p><b>Wilderness Ethics</b></p> <p>Emphasized the motivation, aesthetics, and ethics of wilderness. Viewpoints to be</p>	2

	examined include Native American, Western, historic, and those of modern environmental writers.	
<b>OUT 144</b>	<b>Backcountry Cooking</b>  Covers menu planning, nutritional requirements for wilderness camping, and meal preparations. This course includes cooking a backcountry meal.	1
<b>OUT 107</b>	<b>Orienteering and Route Finding</b>  Combines the topics of using different topographical maps and compasses in order to safely plan a route in the wilderness with orienteering (organized competitive cross-country land navigation). Orienteering rules, symbols, clues, and clubs will also be addressed. Field trips may include student participation in a scheduled orienteering meet.	2
<b>OUT 108</b>	<b>Wilderness Survival Skills</b>  Emphasizes the physiological, psychological, and practical principles of survival. Survival equipment, wilderness improvising techniques, and wilderness dangers are included.	3
<b>OUT 131</b>	<b>Rock Climbing I</b>  Designed to introduce basic rock climbing and to improve dexterity, problem-solving skills, and the physical work capacity of an individual. The primary emphasis will be to gain an understanding of the general principles of climbing, how to equipment works and how it is used, basic climbing skills and techniques, and safety and climbing etiquette and terminology.	2
<b>OUT 136</b>	<b>Leave No Trace Trainer Cert.</b>  Introduces the student to the concepts of Leave No Trace and prepares students to teach Leave No Trace curriculum in a variety	2

	of settings-schools, camps, parks, wilderness and front country areas. Anyone attending this training will be considered a Leave No Trace Trainer at the national level with the Leave No Trace Center for Outdoor Ethics. Becoming a Leave No Trace Trainer enables each student to successfully conduct awareness workshops to their clients, friends, family and scouting badge workshops. Is a must for guides, outfitters, outdoor educators, agency employees, scout/youth group leaders, or anyone who cares about minimizing impact on the Colorado back country. This class is a great outdoor resume enhancer.	
<b>OUT 216</b>	<b>Challenge Course Facilitation</b>  Provides approaches to challenge course management including construction and maintenance of high and low elements, facilitation and group dynamics, risk management and safety, and challenge course philosophies.	2

<b>Environmental Science</b>		
Offered as part of the STEM and Outdoor Leadership program to 2 <sup>nd</sup> year students. This guaranteed transfer course can be applied towards all associate degrees if a grade of C or better is earned.		
<b>High School Instructor: Elizabeth Hudd</b> <b>Spring Enrollment</b>		
<b>Plans of Study:</b> <a href="http://www.rccc.edu/degrees-certificates">www.rccc.edu/degrees-certificates</a>		
<b>Course</b>	<b>Description</b>	<b>Credits</b>
<b>ENV 101</b>	<b>Environmental Science</b>  Provides an introduction to the basic concepts of ecology and the relationship between environmental problems and biological systems. This course includes interdisciplinary discussions on biology, chemistry, geology, energy, natural resources, pollution, and	3

	<p>environmental protection. Using a holistic approach, students will study how the foundation of natural sciences interconnect with the environment. This course includes laboratory experience.</p> <p><b>Prerequisites:</b>  ACT: English 18 and math 19  SAT: Verbal 440 and math 460  Accuplacer: Sentence Skills 95 and Elementary Algebra 60</p>	
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**Executive Internship - Workplace Readiness Certificate**

This certificate blends essential information about soft skills required to be an effective employee while also providing you with insight about how to move through the culture of the business. Learning about the workplace and being prepared to enter the workplace can be worlds apart. This focused certificate gives students a blend of soft skills, theory, and practical application (with practice) to support entry or re-entry into the workforce.

**High School Instructor: Debbie Swick  
Spring Enrollment**

**Plans of study:** <http://www.rccc.edu/business/degrees-certificates>

Course	Description	Credits
<b>MAR 106</b>	<p><b>Marketing your Image</b></p> <p>Teaches students how to market themselves to prospective employers, clients, professional groups, and audiences of all types. Major emphasis will be placed on skills used to gain employment (resumes, interviewing, and professional appearance) and on skills used to achieve continued personal success (professional behavior and attitude). The course will include at least one simulated</p>	3

	interview. <b>Prerequisite: N/A</b>	
<b>BUS 118</b>	<b>Business Survival Skills</b>  Provides an overall perspective for the student to understand the current domestic and world business environment and how the student as an employee fits into that environment. Roles and responsibilities of the business and the employees will be studied, especially as they relate to alternatives for increasing positive impact in the workplace. The focus will be on practical skills application.  <b>Prerequisite: N/A</b>	3