

Warren Tech Central Concurrent Enrollment Courses

Executive Internship & Small Business Start-up

High School Instructors: Jenny Herbaugh & Laurel Himes

Spring Enrollment

Prerequisites: N/A

Earn a RRCC Certificate:

Successful completion of BUS 118 and MAR 106 earns a 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.

Plans of Study: <http://www.rrcc.edu/business/degrees-certificates>

Course	Description	Credits
SBM 101 <i>Spring Enrollment</i>	Starting a Small Business Instructor: Laurel Himes 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.	1
BUS 118 <i>Spring Enrollment</i>	Business Survival Skills Instructors: Laurel Himes Jenny Herbaugh (Executive Internship) 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.	3
MAR 106	Marketing Your Image	3

	Instructors: Laurel Himes Jenny Herbaugh (Executive Internship)	
	<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 interview.</p>	

Automotive Collision Repair

High School Instructor: James Porter
Fall and Spring Enrollment
Prerequisite: N/A

(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.

Earn RRCC Certificates:

Coursework can be applied towards an Associate of Applied Science Degree (AAS) or the following certificates: *Auto Collision Repair, Beginning Auto Collision Non-Structure Repair and Refinish, Intermediate Auto Collision Non-Structure Repair and Refinish, Advanced Auto Collision Structure Repair and Refinish, Industry Prepared Structure.*

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 220	Structural Repair II	4
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

Automotive Customization

High School Instructor: Steve Erickson

Fall and Spring Enrollment

Prerequisites: N/A

(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.

Earn RRCC Certificates:

Coursework can be applied towards an Associate of Applied Science Degree (AAS) or the following certificates: *Automotive Customization Industry Introduction, Introduction to High-Performance Vehicles, Introduction to Custom Painting, Auto Customization and Performance, and Advanced Auto Customization and Performance (3rd year option).*

Plans of Study: <http://www.rrcc.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
AUT 109	High Performance Suspension & Chassis Design	2
AUT 110	High Performance Suspension & Chassis Set-up	4
AUT 116	High Performance Brake Systems	2
AUT 125	Engines I	4
AUT 136	Intro to Racecar Body Fab.	2
AUT 137	Intro to Racecar Chassis Fab.	2

ASE 102	Introduction to the Automotive Shop	2
ASE 120	Basic Auto Electricity	2
ASE 130	General Engine Diagnosis	2

Automotive Technology

High School Instructors: Kelly Hebert & Thomas Millard

Fall and Spring Enrollment

Prerequisites: N/A

(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.

Earn RRCC Certificates:

Coursework can be applied towards an Associate of Applied Science Degree (AAS) or the following certificates: Maintenance Light Repair, Auto Service Technician, Master Auto Service Technician and Auto Parts Management.

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

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

Culinary Arts High School

Instructor: David Bochmann

Spring Enrollment

Prerequisites: N/A

Earn a RRCC Certificate:

Successful completion of all the three courses will lead to an *Introduction to Culinary Arts Certificate*.

Plans of Study: www.rrcc.edu/culinary/degree-and-certificate

Course	Description	Credits
CUA 101	Food Safety and Sanitation	2
<i>Spring Enrollment</i>	Covers the basic rules of sanitation, food-borne illnesses, safe food 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.	
CUA 121 <i>Spring Enrollment</i>	Introduction to Food Production Principles and Practices 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.	1
CUA 157 <i>Spring Enrollment</i>	Menu Planning 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.	3

Cosmetology: Hairstyling

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

(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.

Earn a RRCC Certificate:

Successful completion of all courses earns a Hairstyling Certificate. The Hairstyling Certificate is designed to develop the skills necessary for entry-level employment as a hairstylist.

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

Course	Title	Credits
COS 103	Shampoo/Rinses/Conditioners I	1
COS 130	Intro to Hair Styling	2
COS 120	Intro to Haircutting	2
COS 140	Intro to Chemical Texture	1

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

Cosmetology: Esthetics

High School Instructor: Vicki Flower

Spring Enrollment

Prerequisite: N/A

(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.

Earn a RRCC Certificate:

Successful completion of all courses earns an Esthetician Certificate. The Esthetician Certificate (Esthetics-skin care) is designed to develop the skills necessary for entry-level employment as an esthetician.

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
<p align="center">Fire Science/First Responder</p> <p align="center">High School Instructor: Matt Beckett Spring Enrollment</p> <p>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.</p> <p align="center">Plans of Study: http://www.rrcc.edu/fire-science/fire-fighter-one-academy</p>		
Course	Description	Credits
FST 102	<p>Principles of Emergency Services</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>Prerequisites:</p> <p>ACT: English 18</p>	3

	SAT: Verbal 440 Accuplacer: Sentence Skills 95 or higher English 11 or 12 with a B or better and 3.0 GPA	
FST 160	Candidate Physical Abilities Test Prep Course 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. Prerequisite: N/A	3
EMS 115	First Responder Provides you with core knowledge and skills to function in the capacity of a first responder arriving at the scene of an emergency, providing supportive care until advanced EMS help arrives. Prerequisite: N/A	3
<p style="text-align: center;">Precision Machining</p> <p style="text-align: center;">High School Instructor: Joe Martin Fall and Spring Enrollment Prerequisite: N/A</p> <p style="text-align: center;">(In cooperation with and taught at WarrenTech)</p> <p>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.</p> <p style="text-align: center;">Earn RRCC Certificates:</p> <p>Coursework can be applied towards an Associate of Applied Science Degree (AAS) or the following certificates: <i>Machine Shop Fundamentals, CNC Lathe Machine Operator, Manual Machine Operator or CNC Mill Operator.</i></p> <p style="text-align: center;">Plans of Study: http://www.rrcc.edu/precision-machining</p>		
Course	Description	Credits

MAC 101	Intro to Machine Shop	3
MAC 102	Blueprint Reading	3
MAC 110	Intro to Engine Lathe	3
MAC 111	Intermediate Engine Lathe	3
MAC 120	Introduction to Milling Machine	3
MAC 121	Intermediate Milling Machine	3
MAC 201	Intro to CNC Turning Operations	3
MAC 205	Intro to CNC Milling Operations	3
MAC 250	Advanced Inspection Techniques	3
MAC 252	Practical Metallurgy	3
MAC 145	Production Manufacturing	3
MAC 202	CNC Turning Operations II	3
MAC 206	CNC Milling Operations II	3
MAC 245	CAD/CAM 3D	3
EGT 205	Geometric Dimensioning and Tolerance	3

TV/Video Production

High School Instructor: Jon White
Spring Enrollment
Prerequisites: N/A

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.

Earn a RRCC Certificate:

Successful completion of MGD 104 and MGD 204 earns a Camera Operator Certificate: You will learn the basics of camera operation as it applies to video production for success as an independent business or to become an important asset to someone else's business.

Plans of Study: www.rrcc.edu/multimedia/degrees-and-certificates

Course	Description	Credits
MGD 101	Introduction to Computer Graphics 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	3

	techniques, archiving capabilities, and utilization of the multimedia department server and Internet connection.	
MGD 104	Videography I 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.	3
MGD 164	Digital Video Editing: Apple Final Cut Studio 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 software is available only for the Mac Platform.	3
MGD 165	Adobe After Effects I Provides fundamental techniques for creating digital motion graphics, 2D animation, animated logos, video graphics, etc. This class covers relevant tools and techniques as well as industry standards, delivery methods, and output formats.	3
MGD 204	Videography II Offers advanced study of digital video imaging concepts using digital cameras. Heavy emphasis is placed upon media aesthetics and the creative integration of sight, sound, and motion in student projects.	3

Graphic Design

High School Instructor: Peter Cunis & Scot Odendahl

Spring Enrollment

Prerequisites: N/A

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.

Earn a RRCC Certificate:

Successful completion of MGD 112 and MGD 114 earns an Introduction to Multimedia Certificate: The Introduction to Graphic Design certificate introduces the basic skills for printing, graphic design, and prepress production. This is the starting coursework towards learning graphic design and can be applied to the larger graphic design/print production certificate and degree.

Plans of Study: www.rrcc.edu/multimedia/degrees-and-certificates

Course	Description	Credits
---------------	--------------------	----------------

MGD 101	Intro to Graphic Design 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.	3
MGD 111	Adobe Photoshop I 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>	3
MGD 112	Adobe Illustrator I 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>	3
MGD 114	Adobe InDesign Introduces you to InDesign, an industry standard page layout program which integrates seamlessly with other Adobe Creative Suite programs. InDesign delivers creative freedom and productivity to page layout and production. Class discussions and independent projects supplement hands-on classroom work.	3

Cosmetology: Nail Technology

High School Instructor: Michelle Montoya

Spring Enrollment

Prerequisite: N/A

(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).

Earn a RRCC Certificate:

Successful completion of all courses earns a Manicurist Certificate:

This Manicurist Certificate is designed to develop the skills necessary for entry-level

employment as a manicurist.

Plans of Study: www.rrcc.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

High School Instructor: Tom Kienbaum

Fall and spring enrollment

Prerequisite: N/A

(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.

Earn a RRCC Certificate:

Coursework will be applied towards an Associate of Applied (AAS) degree or certificates: *Ox-Fuel Welding and Cutting, Shield Metal Arc Welding, Gas Metal Arc Welding, Flux Core Arc Welding, or Gas Tungsten Arc Welding*).

Plans of Study: www.rrcc.edu/warrentech/welding

Course	Description	Credits
WEL 100	Safety for Welders 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
WEL 101	Allied Cutting Process	4

	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.	
WEL 102	Oxyacetylene Joining Processes 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
WEL 103	Basic Shielded Metal Arc Welding 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
WEL 110	Advanced Shielded Metal Arc Welding 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
WEL 124	Intro to Gas Tungsten Arc Welding 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
WEL 201	Gas Metal Arc Welding I Covers safety inspections, minor repairs, operating parameters, operation of GMAW equipment on plain carbon steel utilizing short circuit and spray transfer, and fundamental metallurgy principles.	4
WEL 202	Gas Metal Arc Welding II 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

WEL 203	Flux Cored Arc Welding I 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
WEL 204	Flux Cored Arc Welding II 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
WEL 224	Advanced Gas Tungsten Arc Welding 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
WEL 250	Layout and Fabrication Develops welding and associated skills in the use of drawings and blueprints in planning. Includes designing and layout projects.	4

S²TEM: X-TREME Engineering

High School Instructors: Nate Olsen & Matthew Brown (Lakewood HS)

Fall and spring enrollment

Prerequisites: N/A

Earn RRCC Certificates:

Coursework completed may be applied toward RRCC Engineering Graphics Technology Associate of Applied Science (AAS) Degrees or the following certificates: *Intro to Auto CAD or Engineering Graphics Mechanical.*

Plans of Study:

www.rrcc.edu/stem

www.rrcc.edu/engineering-graphics-technology

Course	Description	Credits
CAD 101	Computer Aided Drafting I Focuses on basic computer-aided drafting skills using the	3

	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.	
CAD 102	Computer Aided Drafting II 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.	3
OSH 127	10 Hr. Construction Industry Standards Provides a 10-Hour OSHA certification course for the construction industry and participants will review the current OSHA standards contained in 29 CFR 1926. Participants that complete the course will receive a certificate of completion from the United States Department of Labor, Occupational Safety and Health Administration. The course is taught by instructors authorized by the Occupational Safety and Health Administration.	1
AEC 101	Basic Architectural Drafting 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.	4
AEC 102	Residential Construction Draw 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.	4
CAD 202	Computer Aided Drafting 3D 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,	3

	materials and advanced lighting, walkthrough and flyby animations and 3D Solids to 2D Layouts.	
CAD 262	3D Printing 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.	3
CAR 170	Construction Lab	1-6

Power Equipment and Motorcycle Technology

High School Instructor: Ed Baumgard

Fall and Spring Enrollment

Prerequisite: N/A

(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.

Earn RRCC Certificates:

Coursework can be applied towards an Associate of Applied Science (AAS) degree or the following certificates: *Power Equipment Maintenance Technician* or *Sports Vehicle Maintenance Technician*.

Plans of Study: www.rrcc.edu/warrentech/power-equipment-sport-vehicle-technology

Course	Description	Credits
PVT 100	Intro to Power Vehicle Safety	2
PVT 105	PV Preventive Maintenance	2
PVT 110	PV Electrical Systems	4
PVT 120	PV Engine Repair	4
PVT 130	PV Hydraulics	4
PVT 140	PV Fuel and Emissions	4
PVT 150	PV Diesel Engines	4
PVT 210	PV Advanced Engine Systems	4
PVT 220	PV Advanced Engine Repair	4
PVT 230	PV Drive Systems	4
PVT 235	PV Brakes and Suspension	4
PVT 240	PV Advanced Fuel and Emissions	4

PVT 250	PC General Service	4
<p align="center">Dental Assisting</p> <p align="center">High School Instructor: Cindee Ball Fall and spring enrollment Prerequisites: N/A</p> <p>(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.</p> <p align="center">Earn a RRCC Certificate:</p> <p>Successful completion of all courses (optional not included) earns a Dental Assisting Certificate. This one year dental assisting program teaches students to work directly with patients to make them comfortable and assist the dentist during various procedures.</p>		
Course	Description	Credits
DEA 101 <i>Fall Enrollment</i>	Dental Terminology	1
DEA 102 <i>Fall Enrollment</i>	Principles of Clinical Practice Includes techniques used in four handed dentistry, instrument identification, and armamentarium for tray set-ups. Covers sterilization and aseptic procedures.	3
DEA 104 <i>Fall Enrollment</i>	Specialties in Dentistry 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.	2
DEA 120 <i>Fall Enrollment</i>	Intro to Dental Practice Includes roles and responsibilities of the dental health team; educational background for the various specialties, including general practitioner, hygienist, and dental assistant;	1

	history; legal implications; ethical responsibilities; and the role of professional organizations.	
DEA 121 <i>Fall Enrollment</i>	Dental Science I Includes fundamentals of the oral structures as they apply oral histology, embryology, morphology, pathology, dental anatomy, and dental charting.	3
DEA 122 <i>Fall Enrollment</i>	Dental Science II Includes survey of human anatomy and physiology, the structure of the head and neck as applied to dental assisting, the function of the maxilla and mandible, processes, foramen, sutures, and major nerve and blood supply.	3
DEA 123 <i>Spring Enrollment</i>	Dental Materials I Includes fundamentals of dental materials as they apply to clinical and laboratory applications.	3
DEA 125 <i>Spring Enrollment</i>	Dental Radiography Focuses on the science of radiography, the application of radiographic techniques, and aseptic techniques.	3
DEA 126 <i>Fall Enrollment</i>	Infection Control 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.	3
DEA 131 <i>Spring Enrollment</i>	Advanced Dental Radiography Includes theory and techniques of exposing intra-oral and extra-oral radiographs on adults, children, edentulous, and special needs patients. Covers dental anatomy radiographic interpretation and aseptic techniques.	3

	Enables the student to expose radiographs on the x-ray mannequin and patients. Students must be a minimum of eighteen years of age.	
DEA 132 <i>Spring Enrollment</i>	Medical Emergencies in the Dental Office Includes techniques for taking and reading vital signs. Emphasizes recognition, prevention, and management of medical emergency situations in the dental office. Covers completing and updating patient health history. Addresses pharmacology.	2
DEA 134 <i>Spring Enrollment</i>	Prevention and Nutrition in Dentistry 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.	3
DEA 181 <i>Spring Enrollment</i>	Clinical Internship II Includes the opportunity for clinical application of dental assisting techniques in a dental office or clinical setting as part of the American Dental Association's requirement of 300 clinical internship hours.	2
DEA 182 <i>Optional Spring Enrollment</i>	Clinical Internship III (Optional)	1
<p style="text-align: center;">Outdoor Leadership</p> <p style="text-align: center;">High School Instructor: Peter Nelson Spring Enrollment</p> <p>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.</p>		

Earn a RRCC Certificate:

Successful completion of all courses (excluding OUT 136) earns an *Introduction to Outdoor Education Certificate*.

Plans of Study: www.rrcc.edu/outdoor-education/degree-and-certificate

Course	Description	Credits
HWE 120	Wilderness First Aid Provides limited medical information to cope with basic wilderness emergencies.	1
REC 211	Outdoor Leadership Introduces the development, acquisition, and application of outdoor leadership skills and knowledge. Focuses on 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 minimal impact camping, wilderness ecology, judgment and decision making, group dynamics and trip logistics. These skills enhance effectiveness as an outdoor leader.	2
OUT 143	Backpacking Provides skills related to wilderness travel and outdoor adventure. This course will emphasize knowledge of backpacking skills, survival techniques, proper physical conditioning, route finding, equipment selection, and will encourage an understanding and respect for the environment. The course will involve lecture and discussion sessions followed by a weekend trip in the mountains.	2

OUT 144	Backcountry Cooking Covers menu planning, nutritional requirements for wilderness camping, and meal preparations. This course includes cooking a backcountry meal.	1
OUT 107	Orienteering and Route Finding 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
OUT 108	Wilderness Survival Skills Emphasizes the physiological, psychological, and practical principles of survival. Survival equipment, wilderness improvising techniques, and wilderness dangers are included.	3
OUT 131	Rock Climbing I 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
OUT 136	Leave No Trace Trainer	2

<i>April enrollment</i>	Certification Introduces the student to the concepts of Leave No Trace and prepares students to teach Leave No Trace curriculum in a variety 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.	
OUT 216	Challenge Course Facilitation 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
Cybersecurity Instructor: Bill Heldman Spring enrollment Prerequisites: N/A Plans of study: http://www.rccc.edu/computer-technology/degrees-and-certificates		
Course	Description	Credits

CSC 119	Intro to Programming Emphasizes the design and implementation of structured and logically correct programs with good documentation. The course focuses on basic programming concepts, including numbering systems, control structures, modularization, and data processing. A structured programming language will be used to implement program designs.	3
CNG 121	Computer Tech I: A+ Introduces personal computer hardware to gain the skills and knowledge for a successful entry-level computer service technician. This course provides extensive hands-on work with computer systems. It includes PC setup and configuration, floppy and hard drive installation, and basic maintenance and troubleshooting. Successful completion prepares students for the core hardware service technician portion of the CompTIA A+ Certification Exam.	4
CNG 122	Computer Tech II: A+ Focuses on operating systems as well as installation of modems, tape backups, CD-ROM drives, and SCSI subsystems. This course covers operating systems, Windows 9x, Windows NT and Windows 2000 installation, configuration, and upgrading. It includes laser printers and backup power systems. This course prepares students for the CompTIA A+ OS Technologies Exam.	4
CNG 124	Networking I Provides students with the knowledge necessary to understand, identify, and perform necessary tasks involved in supporting a network. This course covers the vendor-independent	3

	networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network course.	
CNG 125	Networking II Continues to provide students with the knowledge necessary to implement and support a network. This course focuses on the vendor-independent networking skills and concepts that affect all aspects of networking. The Networking I and II: Network + courses prepare students for the Network + certification.	3
CNG 211	Windows Configuration Provides students with the knowledge and skills necessary to address the implementation and desktop support needs of customers who are planning to deploy and support Microsoft Windows client operating system in a variety of network operating system environments.	3
CNG 280	Internship Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor.	3
<p align="center">Computer Science</p> <p align="center">Instructor: Bill Heldman Spring enrollment Prerequisites: N/A</p> <p align="center">Earn a RRCC Certificate: Successful completion of all courses earns a <i>Computer Support Technician Certificate</i>. This area of emphasis provides both hardware and Windows operating systems experience</p>		

needed to work as a PC support and repair person. It also exposes the student to the basic fundamentals of networking and IT security. The student will also be prepared to take the A+ certification exams.

Plans of study: <http://www.rrcc.edu/computer-technology/degrees-and-certificates>

Course	Description	Credits
CSC 119	Intro to Programming Emphasizes the design and implementation of structured and logically correct programs with good documentation. The course focuses on basic programming concepts, including numbering systems, control structures, modularization, and data processing. A structured programming language will be used to implement program designs.	3
CNG 121	Computer Tech I: A+ Introduces personal computer hardware to gain the skills and knowledge for a successful entry-level computer service technician. This course provides extensive hands-on work with computer systems. It includes PC setup and configuration, floppy and hard drive installation, and basic maintenance and troubleshooting. Successful completion prepares students for the core hardware service technician portion of the CompTIA A+ Certification Exam.	4
CNG 122	Computer Tech II: A+ Focuses on operating systems as well as installation of modems, tape backups, CD-ROM drives, and SCSI subsystems. This course covers operating systems, Windows 9x, Windows NT and Windows 2000 installation, configuration, and upgrading. It includes laser printers and backup power systems. This course prepares students for the CompTIA A+ OS Technologies Exam.	4
CNG 124	Networking I Provides students with the knowledge necessary to understand, identify, and perform necessary tasks involved in	3

	supporting a network. This course covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network course.	
CNG 125	Networking II Continues to provide students with the knowledge necessary to implement and support a network. This course focuses on the vendor-independent networking skills and concepts that affect all aspects of networking. The Networking I and II: Network + courses prepare students for the Network + certification.	3
CNG 211	Windows Configuration Provides students with the knowledge and skills necessary to address the implementation and desktop support needs of customers who are planning to deploy and support Microsoft Windows client operating system in a variety of network operating system environments.	3
CIS 118	Intro to PC Applications: MS Office Introduces basic computer terminology, file management, and PC system components. It provides an overview of the operating system and office application software, including word processing, spreadsheets, and databases. It includes the use of a Web browser to access the Internet.	3