RED ROCKS COMMUNITY COLLEGE
CONCURRENT ENROLLMENT

Warren Tech Central
Concurrent Enrollment Courses

Executive Internship

High School Instructor: Jennifer Herbaugh
Fall & Spring Enrollment
Prerequisites: N/A

Plan of Study:

These courses are part of the Business Associate of Applied Science Degree at Red Rocks Community College and may transfer to other colleges. http://www.rrcc.edu/business

Earn a RRCC Certificate:

Successful completion of BUS 1018 and MAR 1006 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.

Course	Description	Credits
BUS 1018	**Business Survival Skills** 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 1006	**Marketing Your Image** 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.	3

Automotive Collision Repair

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

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

Plan of Study:

These courses are part of the Automotive Collision Technology Associate of Applied Science Degree at Red Rocks Community College and may transfer to other colleges.
https://www.rrcc.edu/warrentech/auto-service-collision-customization/auto-collision-technology-degrees-certificates

(In cooperation with and taught at Warren Tech) 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.*

Course	Description	Credits
ACT 1001	**Introduction to Automotive Collision Tech.** Designed as an orientation to the automotive collision repair industry. Students receive an overview of job possibilities as well as learn various types of automobile construction. Names, uses and maintenance procedures for a variety of tools and equipment are covered. Focuses on general collision repair and refinishing shop safety procedures with an emphasis on personal and environmental safety issues. Students also learn the proper handling and disposal of hazardous materials.	4
ACT 1010	**Safety in Collision Repair** Introduces the student to safety techniques and operation as it relates to shop safety and industry standards. The student is exposed to regulations and collision shop operations. In addition, the student becomes involved with VICA, developing writing and speaking skills.	2
ACT 1011	**Metal Welding and Cutting** Covers sheet metal oxygen-acetylene welding and MIG welding techniques including safety, materials, equipment and setups. Personal and vehicle protective measures prior to welding procedures is presented.	3
ACT 1021	**Non-Structural Repair Preparation** Covers the basic characteristics of preparation for automotive repair. Students familiarize themselves with damage analysis, extent of damage and the sequence of repair. Focuses on removal of vehicle components and protection of panels along	3

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	with storage and labeling of parts. Safety procedures and equipment use are included.	
ACT 1022	**Panel Repair & Replacement** Covers straightening techniques including tension pulls/stress relief, metal finishing, metal shrinking and use of fillers. Emphasizes the identification, handling and replacement of parts such as adjustment and alignment of bolt-on parts, fixed parts and accessories. Training covers the use of adhesives, sound deadeners and welding methods performed during repairs.	3
ACT 1023	**Metal Finishing & Body Filling** Develops skills in metal finishing, metal shrinking, and the use of cosmetic fillers. Emphasis is placed on the use of proper tools required to perform these tasks, including use, selection and safety procedures for tools and equipment selected. Paint less Dent Repair Tools will also be introduced in this course along with beginning level repair techniques.	3
ACT 1024	**Exterior Panel Replacement (Weld-on)** Covers the replacement of welded-on exterior panels such as quarters, roofs, cab panels, side panels, etc. Emphasis is placed on the use of proper tools required to perform these tasks, including use, selection, and safety procedures for tools and equipment selected.	3
ACT 1031	**Structural Damage Diagnosis** Focuses on methods of frame measurement using dimension charts and service manuals. Includes the use of self-centering gauges and mechanical and electronic measuring. Appropriate terms and definitions of vehicle structures and vehicle diagnosis is covered including identification and analysis of damage. Includes the techniques for basic hook ups and safety procedures used in making corrective pulls.	3
ACT 1032	**Structural Damage Repair** Continues the study and application of frame measurement and repair. The student applies methods found in dimension charts and service manuals for vehicle diagnosis and straightening. Training includes the replacement of a structural panel with the identification of damaged suspension components replaced according to manufacturer's recommendations.	3
ACT 1041	**Refinishing Safety** Covers correct use of safety procedures used in refinishing. Proper fit and use of various types of protective equipment is emphasized. The identification of tools and equipment, with use and maintenance is covered including national guidelines for proper disposal and handling of hazardous materials.	1
ACT 1042	**Surface Preparation I** Performs surface preparation for refinishing including cleaning, sanding, feather edging, chemical treatment of bare materials and priming. The application of	2

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	primers includes rationale and use of colored primers and sealers. In addition, the course will cover spot-priming for repaired areas.	
ACT 1043	**Spray Equipment Operation** Covers the inspection, cleaning and determination of the condition of spray guns and related equipment. Students learn skills for adjusting spray guns by setting-up and testing spray gun operations.	2
ACT 1044	**Refinishing I** Provides the knowledge needed for application and use of automotive paint systems. Course includes locating color codes, mixing formulas, matching and selections of materials. Proper paint gun use and adjustments is taught for the product being applied. In addition, the student practices correct masking and detailing techniques.	2
ACT 1051	**Plastics & Adhesives I** Designed to teach the state-of-the-art repair for both rigid and flexible plastic components and choosing adhesives using the latest manufacturer's repair techniques	1
ACT 1070	**Automotive Collision Technology Lab Exp. I** Designed to prepare the student to perform basic tasks for a specialized area in a controlled instructional lab.	3
ACT 1071	**Automotive Collision Technology Lab Exp. II** Course is a continuation of Lab experience. Designed to prepare the individual to perform basic tasks for a specialized area in a controlled instructional lab.	3
ACT 2005	**Estimating & Shop Management** Initiates written estimates on damaged vehicles. Students learn shop management including work orders, ordering supplies, operating costs, timecards, shop liabilities, employee's safety and insurance management issues.	3
ACT 2011	**Metal Welding & Cutting II** Covers mig welding procedures of seam weld, stitch welds and destructive testing. Resistance spot welding, which includes two-sided spot weld, plasma cutting, safety, materials, and equipment and operating procedures, with emphasis on shop safety are also presented.	2
ACT 2041	**Paint Defects** Covers paint defects. Emphasizes the causes of paint defects with methods to cure problems during and after refinishing procedures. Students learn to identify the proper surface preparations to apply prior to refinishing. Training includes using paint equipment and determining paint film thickness with proper temperatures for refinishing.	3

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ACT 2042	**Surface Preparation II** Emphasizes surface preparation for refinishing including cleaning, sanding, feather edging, chemical treatment of bare metals and priming. The application of primers, including why and where to use them is covered.	2
ACT 2043	**Refinishing II** In this advanced course students learn the necessary skills used to tint and blend panels working with the latest finishes and paints. Special coatings and procedures are covered in this course.	2
ACT 2044	**Final Detail** Focuses on the detailing procedures in paint refinishing of vehicles. Methods and techniques are specialized to enhance painting skills. Transfers and tapes methods with decals etc. are demonstrated.	2

Automotive Customization

High School Instructor: Christopher Small
Fall & Spring Enrollment
Prerequisites: N/A

Plans of Study:

These courses are part of the Auto Customization Applied Science Degree at Red Rocks Community College and may transfer to other colleges.
https://www.rrcc.edu/warrentech/auto-service-collision-customization/automotive-customization-degree-certificates

(In cooperation with and taught at Warren Tech)
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).*

Course	Description	Credits
ACT 1001	**Introduction to Automotive Collision Tech.** Designed as an orientation to the automotive collision repair industry. Students receive an overview of job possibilities as well as learn various types of automobile construction. Names, uses and maintenance procedures for a variety of tools and equipment are covered. Focuses on general collision repair and refinishing shop	4

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	safety procedures with an emphasis on personal and environmental safety issues. Students also learn the proper handling and disposal of hazardous materials.	
ACT 1010	**Safety in Collision Repair** Introduces the student to safety techniques and operation as it relates to shop safety and industry standards. The student is exposed to regulations and collision shop operations. In addition, the student becomes involved with VICA, developing writing and speaking skills.	2
ACT 1011	**Metal Welding and Cutting** Covers sheet metal oxygen-acetylene welding and MIG welding techniques including safety, materials, equipment and setups. Personal and vehicle protective measures prior to welding procedures is presented.	3
ACT 1022	**Panel Repair & Replacement** Covers straightening techniques including tension pulls/stress relief, metal finishing, metal shrinking and use of fillers. Emphasizes the identification, handling and replacement of parts such as adjustment and alignment of bolt-on parts, fixed parts and accessories. Training covers the use of adhesives, sound deadeners and welding methods performed during repairs.	3
ACT 1023	**Metal Finishing & Body Filling** Develops skills in metal finishing, metal shrinking, and the use of cosmetic fillers. Emphasis is placed on the use of proper tools required to perform these tasks, including use, selection and safety procedures for tools and equipment selected. Paint less Dent Repair Tools will also be introduced in this course along with beginning level repair techniques.	3
ACT 1041	**Refinishing Safety** Covers correct use of safety procedures used in refinishing. Proper fit and use of various types of protective equipment is emphasized. The identification of tools and equipment, with use and maintenance is covered including national guidelines for proper disposal and handling of hazardous materials.	1
ACT 1042	**Surface Preparation I** Performs surface preparation for refinishing including cleaning, sanding, feather edging, chemical treatment of bare materials and priming. The application of primers includes rationale and use of colored primers and sealers. In addition, the course will cover spot-priming for repaired areas.	2
ACT 1043	**Spray Equipment Operation** Covers the inspection, cleaning and determination of the condition of spray guns and related equipment. Students learn skills for adjusting spray guns by setting-up and testing spray gun operations.	2
ACT 1044	**Refinishing I**	2

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	Provides the knowledge needed for application and use of automotive paint systems. Course includes locating color codes, mixing formulas, matching and selections of materials. Proper paint gun use and adjustments is taught for the product being applied. In addition, the student practices correct masking and detailing techniques.	
ACT 1060	**Custom Painting** This course provides instruction in basic custom paint application such as pearl paints, candy colors, metal flakes, etc.	3
ACT 1065	**Auto Body Customizing I** Covers tool identification welding (mig and resistance), plasma cutting, metal finishing, metal shrinking and the use of cosmetic fillers. Emphasis is placed on the use of proper tools required to perform body customizing tasks, including use, selection and safety procedures for tools and equipment selected.	3
ACT 1066	**Auto Body Customizing II** Covers modification of vehicle and vehicle parts such as Chopping, measuring. realigning, fabricating, recessing, shaping etc.	3
ACT 1067	**Auto Customizing II** Covers the completion of modifications that were started in Automotive Body Customizing II along with the addition of body molding kits.	3
ACT 1070	**Automotive Collision Technology Lab. Exp. I** Designed to prepare the student to perform basic tasks for a specialized area in a controlled instructional lab.	3
ACT 1071	**Auto Collision Technical Lab Exp. II** Course is a continuation of Lab experience. Designed to prepare the individual to perform basic tasks for a specialized area in a controlled instructional lab.	1
ACT 2005	**Estimating and Shop Management** Initiates written estimates on damaged vehicles. Students learn shop management including work orders, ordering supplies, operating costs, timecards, shop liabilities, employee's safety and insurance management issues.	3
ACT 2011	**Metal Welding/Cutting II** Covers mig welding procedures of seam weld, stitch welds and destructive testing. Resistance spot welding, which includes two-sided spot weld, plasma cutting, safety, materials, and equipment and operating procedures, with emphasis on shop safety are also presented.	2
ACT 2043	**Refinishing II**	2

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	In this advanced course students learn the necessary skills used to tint and blend panels working with the latest finishes and paints. Special coatings and procedures are covered in this course.	
AUT 1009	**High Performance Suspension & Chassis Design** Introduces the fundamentals of chassis types and components. Includes steering and suspension component theory, tire and wheel theory, chassis design and geometry theory as applied to oval track, drag race, and road race vehicles.	2
AUT 1016	**High Performance Brake Systems** Introduces high performance brake systems as applied to racing vehicles.	2
AUT 1036	**Intro to Racecar Body Fab.** Introduces a variety of techniques used in the forming of racecar body panels made up of various types of materials. Emphasizes sheet steel, aluminum, and composite plastics. Students practice the fabrication and finishing of body panels. Tools and equipment typically used in the industry are also covered.	2
ASE 1002	**Introduction to the Automotive Shop** Prepares the incoming automotive student to work in the shop safely and gain familiarity with the shop and common equipment.	2
ASE 1020	**Basic Auto Electricity** Introduces vehicle electricity and includes basic electrical theory, circuit designs, and wiring methods. It also focuses on multimeter usage and wiring diagrams.	2
ASE 1030	**General Engine Diagnosis** Teaches students how to perform basic engine diagnosis to determine condition of engine. This will include engine support systems.	2

Automotive Technology

High School Instructor: Tom Millard & Steve Erickson
Fall & Spring Enrollment
Prerequisites: N/A

Plans of Study:

These courses are part of the Auto Technology Applied Science Degree at Red Rocks Community College and may transfer to other colleges.
https://www.rrcc.edu/warrentech/auto-service-collision-customization/automotive-service-technology-degrees-certificates

(In cooperation with and taught at Warren Tech)
This two-year program is designed to give students basic and advanced skill training needed for

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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).*

Course	Description	Credits
ASE 1001	**Auto Shop Orientation** Provides students with safety instruction in the shop and on the Automobile. Emphasis is placed on the proper use and care of test equipment, precision measuring and machining equipment, gaskets, adhesives, tubing, wiring, jacks, presses, and cleaning equipment and techniques.	2
ASE 1002	**Introduction to the Automotive Shop** Prepares the incoming automotive student to work in the shop safely and gain familiarity with the shop and common equipment.	2
ASE 1010	**Brakes I** Covers basic operation of automotive braking systems. This includes operation, diagnosis and basic repair of disc, drum and basic hydraulic braking systems.	2
ASE 1011	**Automotive Brake Service II** Teaches skills to perform service checks and procedures to automotive foundation braking system and to identify components and types of ABS and traction control systems.	2
ASE 1020	**Basic Automotive Electricity** Introduces vehicle electricity and includes basic electrical theory, circuit designs, and wiring methods. It also focuses on multimeter usage and wiring diagrams.	2
ASE 1022	**Automotive Electricity Safety Systems** Teaches the student to Identify operation of vehicle lighting systems, Supplemental Inflatable Restraints (SIR), windshield wiper, driver warning systems and vehicle accessories.	1
ASE 1023	**Starting and Charging Systems** Covers the operation, testing and servicing of vehicle battery, starting and charging systems. Includes voltage testing of starter and generator, load testing and maintenance of a battery.	2

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ASE 1030	**General Engine Diagnosis** Teaches students how to perform basic engine diagnosis to determine condition of engine. This will include engine support systems.	2
ASE 1034	**Automotive Fuel and Emissions Systems I** Focuses on lecture and laboratory experiences in the diagnosis and repair of automotive fuel emission control systems, filter systems and spark plugs. Course also includes maintenance to diesel (DEF) systems.	2
ASE 1040	**Suspension and Steering I** Focuses on lecture and related experiences in the diagnosis and service of suspensions and steering systems and their components.	2
ASE 1041	**Suspension and Steering II** Covers design, diagnosis, inspection, and service of suspension and steering systems used on light trucks and automobiles. Course includes power steering and SRS service.	2
ASE 1050	**Manual Drive Train and Axle Maintenance** Studies the operating principles and repair procedures relating to axle-shaft and universal joints.	2
ASE 1051	**Manual Transmission/Transaxles & Clutches** Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive manual transmissions, transaxles and clutches and related components.	2
ASE 1052	**Manual Transmission, Transaxles and Clutches II** Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive differentials, four wheel and all-wheel drive units.	2
ASE 2031	**Computers & Ignition Systems** Focuses on lecture and laboratory experiences in the inspection and testing of typical computerized engine control systems.	2
ASE 2033	**Automotive Fuel Injection/ Emissions II** Focuses on lecture and related laboratory experiences in the diagnosis and repair of electronic fuel injection systems and modern exhaust systems.	4
ASE 2050	**Auto Trans/Transaxle Service** Focuses on practical methods of maintaining, servicing, and performing minor adjustments on an automatic transmission and transaxle.	1
ASE 2051	**Auto Trans/Transaxle Repair**	3

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	Covers diagnosis, principles of hydraulics, principles of electronic components, power flow, theory of operation, remove and re-install transmission/transaxle, and replacement of components.	
ASE 2064	**Introduction to HVAC Systems** Covers basic operation of the Heating and Air Conditioning components.	1

Culinary Arts High School

Instructor: **Emily Duncan**
Fall & Spring Enrollment
Prerequisites: N/A

Plans of Study:
These courses are part of the Culinary Arts Associate of Applied Science Degree/Certificate at Red Rocks Community College and may transfer to other colleges.
www.rrcc.edu/culinary/degree-and-certificate

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

Course	Description	Credits
CUA 1001	**Food Safety and Sanitation** Introduces the student to 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 take a nationally recognized test from the Education Foundation of the National Restaurant Association. If passed with a score of 75% or more, students receive a Certificate of from the Education Foundation.	2
CUA 1021	**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. The class meets a minimum of 22.5 hours.	1
CUA 2078	**Seminar** Provides students with an experiential learning opportunity.	2

Cosmetology: Hairstyling

High School Instructor: Kori Wyckoff and Rachael Lee
Fall and Spring Enrollment
Prerequisite: N/A

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

Plans of Study:

These courses are part of the Cosmetology Associate of Applied Science Degree at Red Rocks Community College.
https://www.rrcc.edu/warrentech/cosmetology

(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.

Course	Title	Credits
COS 1003	**Shampoo/Rinses/Conditioners I** Introduces various types of scalp treatments, shampoos, and conditioners. This course covers hair and scalp disorders, product knowledge, and proper massage techniques. This course provides training in a lab or classroom setting.	1
COS 1030	**Intro to Hair Styling** Combines theory with the practical application of hairstyling. This course covers roller placement, hair molding and shaping, pin curls, finger waves, comb-out techniques, air forming, thermal straightening, or curling for short to long hair.	2
COS 1020	**Intro to Haircutting** Introduces haircutting theory relevant to patron protection, angles, elevations, and the analysis of hair textures as related to hair cutting procedures. This course covers proper use and care of hair cutting implements, basic hair cutting techniques using various cutting implements, and disinfection and sanitation procedures as they relate to haircutting.	2
COS 1040	**Intro to Chemical Texture** Introduces a combination of theory and practice focusing on the analysis of hair and scalp, proper equipment and product knowledge. Includes basic techniques in permanent waving and chemical relaxing. Provides training in a classroom or lab setting on mannequins or live models.	1
COS 1010	**Intro to Hair Coloring** Introduces theory pertaining to the law of color, theory of color, chemistry of color, product knowledge, and analysis of hair and scalp. This course covers basic application techniques and procedures for the application of haircolor.	2

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COS 1060	**Intro to Infection Control** This course covers various methods of sanitation, disinfection; and principles of workplace safety, infection control and prevention. Topics presented in this course include: classroom study of bacteriology, chemistry of cleaning versus disinfecting products that are used in the cosmetology industry, and terminology dealing with infection control.	2
COS 2050	**Business Management/Personal Skills/Ethics** This course covers salon management business practices and the knowledge and skills necessary to build a successful business. Topics covered in this course include: basic business management, interpersonal skills, basic techniques in salesmanship and customer services, job readiness skills, and professional ethics.	1
COS 1050	**Laws, Rules and Regulations** This course covers laws, rules, and regulations governing the beauty industry in Colorado and accountability for the student, licensed individual, salons, and school owners.	1
COS 1031	**Intermediate I: Hair Styling** This course covers the accepted methods of styling hair, air forming, roller sets, finger waves, pin curls, braiding, and hair pressing.	2
COS 1021	**Intermediate I: Hair Cutting** Expands on basic haircutting theory incorporating facial shapes, head and body forms to determine the appropriate techniques required to complete a client haircut. Students will apply hair cutting techniques in specialized classes or in the supervised salon.	2
COS 1041	**Intermediate I: Chemical Texture** Emphasizes theory and practical application of chemical texture, including permanent waves and chemical relaxers, in a supervised salon setting. Students will practice different wrapping techniques required by trend styles in a classroom or salon setting.	1
COS 2003	**Shampoo/Rinses/Conditioners II** This course covers theory and practical training in shampoos, rinses, and conditioners and examines advanced techniques to prepare the student for employment. Instruction includes preparation for the Colorado State Board Licensing Examination for shampoos, rinses, and conditioners.	1
COS 1011	**Intermediate I: Hair Coloring** Expands on haircoloring theory and practical application of color products, formulations of color, level and shades of color. Students will learn application techniques in a specialized class or in a supervised salon setting.	2

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COS 1061	**Intermediate I: Infection Control** This course focuses on the theory and daily practice of proper methods of disinfection, sanitation and safety procedures as related to all phases of cosmetology. Topics presented in this course include: terminology and training of disinfection, sanitation and safety procedures, and customer service in a supervised salon setting or specialized class.	1
COS 2030	**Intermediate II: Hair Styling** This course covers accepted methods of styling hair, including: air forming, roller sets, iron sets, finger waves, braiding and hair pressing. Students will practice hairstyling techniques for client purposes in specialized classes or in a supervised salon setting.	2
COS 2020	**Intermediate II: Hair Cutting** This course covers haircutting theory related to facial shapes, head and body forms to determine the techniques necessary for client's specified haircut and practical applications of haircutting techniques for various client requests.	2
COS 2040	**Intermediate II: Chemical Texture** This course covers theory of chemical texture and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Students will practice different wrapping techniques required by trend styles or per client request.	1
COS 2010	**Intermediate II: Hair Coloring** This course covers theory and practical application of color products, formulations of color, level and shades of color. Students will practice haircoloring techniques in a specialized class or in a supervised salon setting.	2
COS 2060	**Intermediate II: Infection Control** This course covers infection control theory and practice of proper methods of sterilization, disinfection, sanitation, and safety procedures as related to all phases of the industry. Topics for this course include: terminology and training of disinfection, sanitation, and safety procedures. The individual's responsibility to provide a safe work environment is practiced.	2
COS 2031	**Advanced Hair Styling** This course covers hairstyling theory and advanced techniques in all phases of hair styling to prepare the student for employment. Training is a combination of supervised salon work and specialized classes. Students will prepare for the Colorado State Board Licensing Examination.	1
COS 2011	**Advanced Hair Coloring** This course covers advanced theory and practical techniques in haircoloring. Course covers the recognition of color problems and color correction procedures in	2

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	preparation for the Colorado State Board Licensing Examination. Topics in this course include: advanced techniques, color formulation, and product knowledge.	
COS 2041	**Advanced Chemical Texture** This course covers advanced techniques for chemical texture and current industry standards of practice to prepare the student for employment and the State Board Licensing Examination. Instruction is provided in specialized classes or supervised salon setting.	1
COS 2021	**Advanced Hair Cutting** This course covers advanced haircutting techniques utilizing multiple cutting tools and emphasizes current fashion trends and preparation for the Colorado State Licensure examination.	2
COS 2061	**Advanced Infection Control** This course focuses on the theory and daily practice of proper methods of disinfection, sanitation and safety procedures as related to all phases of cosmetology. Topics presented in this course include: terminology and training of disinfection, sanitation and safety procedures, and customer service in a supervised salon setting or specialized class.	1
COS 2062	**Advanced II: Disinfection, Sanitation and Safety** This course is the extra hours/credits required for the hair stylist program, per State Board of Colorado Barber/Cosmetology Board. Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Board Licensing Examination in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.	3

Cosmetology: Esthetics

High School Instructor: Stephanie Mora
Fall & Spring Enrollment
Prerequisite: N/A

Plans of Study:

These courses are part of the Cosmetology Associate of Applied Science Degree at Red Rocks Community College.
https://www.rrcc.edu/warrentech/cosmetology

(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:

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

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.

Course	Description	Credits
EST 1010	**Introduction to Skin Care** This course covers the study of skin in both theory and practical applications for skin care professionals. Topics included in the course are: skin structure and function, massage manipulations while providing facials and the benefits derived from a proper facial, and good skin care routines. Training is conducted in a classroom or lab setting using manikins or models.	3
EST 1011	**Intermediate to Skin Care** This course covers skin care and practical application pertaining to anatomy, skin disorders, skin types and facial shapes. Students will help patrons to select the proper skin care treatment(s). Practical and theory application can be done in specialized classes or supervised salon setting using models or customer service.	2
EST 1060	**Introduction to Disinfection, Sanitation & Safety** Introduces the various methods of disinfection, sanitation and safety as used today in the industry. Classroom study of bacteriology and the terminology dealing with disinfection, sanitation and safety.	2
EST 1061	**Intermediate Disinfection, Sanitation and Safety** Presents theory and the daily utilization and practice of the proper methods of disinfection, sanitation, and safety. Procedures as related to all phases of the industry. Training is provided in a supervised (clinical) setting.	3
EST 2010	**Advanced Skin Care** This course covers advanced techniques for massage, skin care, and lash/brow tinting. Theory and practical procedures ready the student for employment and preparation for State Board Licensing Examination. Instruction is provided in specialized classes or in a supervised salon setting.	2
EST 2011	**Facial Make-Up** This course covers cosmetics and their functions for the skin care professional, including the importance of color theory, facial types and skin tones as they relate to facial makeup. Topics in this course include: Instruction from the basic makeup application, corrective makeup procedures, and disinfection and sanitation pertaining to all aspects of makeup.	1
EST 2012	**Hair Removal** This course covers in-depth study and practice of hair removal and the practice of patron protection and safety. Training for general waxing and body waxing	3

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	procedures are provided. Demonstration of disinfection and sanitation as it pertains to Colorado rules and regulations will be practiced.	
EST 2060	**Advanced Disinfecting, Sanitation and Safety** Provides advanced training on disinfection, sanitation, and safety is incorporated in a supervised salon (clinical) setting. Advanced techniques will ready the student for employment. Student preparation for the State Board Licensing Examination in theory and practical procedures for disinfection, sanitation and safety.	2
EST 1075	**Laws, Rules and Regulations** OR **Special Topics** (if COS 150 was earned for other Cosmetology program) Provides students with a vehicle to pursue in depth exploration of special topics of interest.	1
EST 2075	**Business Management/ Personal Skills/ Ethics** **OR** **Special Topics** (if COS 250 was earned for other Cosmetology program) This course covers salon management business practices and the knowledge and skills necessary to build a successful business. Topics covered in this course include: basic business management, interpersonal skills, basic techniques in salesmanship and customer services, job readiness skills, and professional ethics.	1

Cosmetology: Nail Technology

High School Instructor: Karen Kennedy
Fall & Spring Enrollment
Prerequisite: N/A

Plans of Study:

These courses are part of the Cosmetology Associate of Applied Science Degree at Red Rocks Community College.
https://www.rrcc.edu/warrentech/cosmetology

(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).

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.

Course	Description	Credits
COS 1076	**Laws, Rules and Regulations** **OR**	1

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

	Special Topics (if COS 150 was earned for other Cosmetology program) This course covers laws, rules, and regulations governing the beauty industry in Colorado and accountability for the student, licensed individual, salons, and school owners.	
NAT 2075	**Business Management/ Personal Skills/ Ethics** **OR** **Special Topics** (if COS 250 was earned for other Cosmetology program) Provides students with a vehicle to pursue in depth exploration of special topics of interest.	1
NAT 1008	**Intro to Manicure/Pedicure/Artificial Nails** Provides a basic introduction into the proper use of implements used in manicures, pedicures and artificial nails. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures, pedicures and artificial nails is covered. Training is done in a classroom or lab setting using models or other techniques.	3
NAT 1010	**Introduction to Nail Care** This course covers the proper use of implements used in manicures and pedicures. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures and pedicures is covered. Training is done in a classroom or lab setting using models or other techniques.	3
NAT 1011	**Intermediate Nail Care** This course covers theory and practical application dealing with different types of manicures, pedicures, nail art, and massage techniques. Theory and practical application of procedures, products, nail shapes, and maintenance of natural nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service. Proper sanitation and sterilization as it pertains to all aspects of manicures, pedicures, and nail art is taught.	2
NAT 1058	**Intermediate Mani/Pedi/Artificial Nails** Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.	2
NAT 1059	**Intermediate Mani/Pedi/Artificial Nails II** Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn	2

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*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

	to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.	
NAT 2008	**Advanced Mani/Pedi/Artificial Nails** Provides advanced theory and practical application of manicures, pedicures and nail art techniques. Theory and advanced practical techniques of silk wraps, tip overlays, acrylics and product knowledge to ready the student for employment is presented. Instruction is provided in specialized classes or in supervised salon (clinical) setting using models or customer service. Student preparation for state board licensing examination pertaining to manicures and pedicures is covered.	4
NAT 2010	**Advanced Nail Care** This course covers advanced theory and practical application dealing with different types of manicures, pedicures, massage techniques, and nail art. Topics included in this course are: practical application of procedures, products, nails shapes and maintenance of the natural nails. Course will cover client education on different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.	2

Dental Assisting

High School Instructor: Jennifer Skeels
Fall & Spring Enrollment
Prerequisite: N/A

Plans of Study:

This course is a part of the Dental Assistant Certificate at Red Rocks Community College and may transfer to other colleges.
https://www.rrcc.edu/warrentech/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.

Earn a RRCC Certificate:

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.

Course	Description	Credits
DEA 1001	**Dental Terminology** Includes colloquial versus professional terminology, word elements and structure as they apply to dental terminology.	1

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

DEA 1021	**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 1022	**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 1011	**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; history; legal implications; ethical responsibilities; and the role of professional organizations.	1
DEA 1012	**Dental Science I** Includes fundamentals of the oral structures as they apply oral histology, embryology, morphology, pathology, dental anatomy, and dental charting.	3
DEA 1013	**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 1023	**Dental Materials I** Includes fundamentals of dental materials as they apply to clinical and laboratory applications.	3
DEA 1024	**Dental Radiography** Focuses on the science of radiography, the application of radiographic techniques, and aseptic techniques.	3
DEA 1015	**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 1016	**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

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

DEA 1031	**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 2087	**Cooperative Education** Meets the individual needs of students engaged in intensive cooperative education under the direction of a qualified instructor.	2

Emergency Medical Services

This program prepares you to sit for the National Registry practical and written certification exams, which are required for Colorado state certification. Once certified, the graduate is eligible for entry-level employment in the emergency medical services system.

The student will be awarded an RRCC Emergency Medical Technician certificate upon successful completion in all EMS courses with a grade of C or better. *Please note: The Emergency Medical Technician certificate does NOT replace the National Registry certification.

High School Instructor: Tim Vaninger
Spring Enrollment

Earn a RRCC Certificate:
Successful completion of all courses will earn an Emergency Medical Technician *Certificate. The certificate prepares students to sit for the National Registry practical and written certification. Once certified, the graduate is eligible for entry-level employment in the emergency medical services system.*

Course	Description	Credits
EMS 1021	**EMT Fundamentals** Introduces the Emergency Medical Technician (EMT) student to prehospital emergency care. The topics included in this course are Emergency Medical Services (EMS) systems, well-being of the EMT, communications, documentation, anatomy, airway management, and patient assessment.	3
EMS 1022	**EMT Medical Emergencies** Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to effectively provide emergency care and transportation to a patient experiencing a medical emergency. This course focuses on the integration of the physical exam, medical history, and pathophysiology when assessing and treating the medical patient.	4

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

EMS 1023	**EMT Trauma Emergencies** Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to provide appropriate emergency care and transportation of a patient who has suffered a traumatic injury. The concepts of kinematics and the biomechanics of trauma, along with pathophysiology and injury patterns will provide the student with the ability to assess and manage the trauma patient.	2
EMS 1024	**EMT Special Considerations** Provides the Emergency Medical Technician (EMT) student with the knowledge and skills required to modify the assessment, treatment, and transportation of special patient populations and patients in special circumstances. This course also provides an overview of incident command, mass casualty incidents, vehicle extrication, air medical support, hazardous materials, and terrorism.	2
EMS 1070	**Emergency Medical Technician-Basic Clinical** Provides the EMT student with the clinical experience required.	1

Fire Science/First Responder

High School Instructor: Matt Beckett
Spring Enrollment

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.

Plans of Study:

These courses are part of the Fire Science Technology Associate of Applied Science Degree at Red Rocks Community College and may transfer to other colleges
https://www.rrcc.edu/fire-science

Course	Description	Credits
FST 1002	**Principles of Emergency Services** Provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government ; laws and regulations affecting the fire service; fire service nomenclature ; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.	3
FST 1060	**Candidate Physical Abilities Test Prep Course**	3

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

	Prepares students for the CPAT test and other related fitness testing for entry level firefighters. The course will focus on aerobics and strength training to assist students in passing a CPAT test or any related fitness entry level test. Students will also be trained on how to use various firefighting tools as they pertain to how the tools will be used in the CPAT or other related entry level fitness test.	
FST 1010	**Job Placement and Assessment** Addresses all aspects of the Fire Service entrance examination process and especially emphasizes various components of the exam, including the written, physical abilities, and oral interview. The objective of this class is to help increase the entrance firefighter candidate's chance of obtaining a career in the Fire Service.	3
EMS 1015	**Emergency Medical 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.	3

Precision Machining

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

Plans of Study:
These courses are part of the Precision Machining Associate of Applied Science Degree at Red Rocks Community College and may transfer to other colleges.
http://www.rrcc.edu/precision-machining

(In cooperation with and taught at Warren Tech)
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.

Earn RRCC Certificates:
Coursework can be applied towards an Associate of Applied Science Degree (AAS) or the following certificates: *Machine Shop Fundamentals, CNC Lathe Machine Operator, Manual Machine Operator or CNC Mill Operator.*

Course	Description	Credits
MAC 1010	**Intro to Engine Lathe** Introduces basic lathe applications which will consist of identifying lathe components and controls, understanding turning safety, calculating speeds and feeds, using various tools and tool holders, identifying basic tool geometry, and the use of common lathe spindle tooling. Students will perform basic lathe operations, which will consist of facing, center-drilling, chuck turning, turning between centers, boring, grooving, tapers, knurling, and single point threading. Students will be	3

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
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	required to produce specified parts to a tolerance of +/- .004 in. and perform competencies set by manufacturing standards.	
MAC 1011	**Intermediate Engine Lathe** Teaches students to prepare single point external and internal unified screw threads to a Class 3 fit, generate angles with the compound rest within one degree, ream holes concentric within .001 inches, determine cutting speeds, and perform facing and turning operations.	3
MAC 1020	**Introduction to Milling Machine** Teaches students to identify the major parts of the vertical mill, align a vise, use an indicator, edge finder, and boring head, determine speeds and feeds perform simple indexing, mill flat, square surfaces and slots, drill, bore, and tap holes, and work within a plus or minus .002 inch tolerance.	3
MAC 1021	**Intermediate Milling Machine** Prepares students to determine hole locations by coordinates and degrees, use a rotary table, use a jig bore to drill holes by the coordinate method, and work within plus or minus .001 inch tolerance.	3
MAC 2001	**Intro to CNC Turning Operations** Introduces basic writing and editing of CNC lathe programs. G&M codes, math, speeds and feeds, production processes including basic process controls, and documentation associated with manufacturing will be covered.	3
MAC 2005	**Intro to CNC Milling Operations** Introduces basic creating and editing of CNC mill programs. Introduction to G&M codes, math, speeds and feeds, production processes including process controls, and documentation associated with manufacturing will be covered.	3
MAC 2050	**Advanced Inspection Techniques** Exposes the student to the principles of dimensional metrology. Students will learn how to use common measuring instruments relating to state-of-the-art manufacturing environments. Students will also learn the importance of Quality Control, TQM, and SPC processes as they relate to manufacturing environments. Use of a coordinate measuring machine will be delivered.	3
MAC 2053	**Wire EMD Operation** Covers the preparation, operation, and maintenance the Computer Numerical Controlled wire Electric Discharge Machine (the CNC wire EDM machine).	3
MAC 2057	**Wire EMD Programming** Covers how to create a G language program (G-code) for a Computer Numerical Controlled wire Electrical Discharge Machine (CNC wire EDM Machine) using Computer-aided Design and Computer-aided Manufacturing (CAD/CAM) software.	3

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MAC 2010	**Intro to Swiss Turn Operations** Introduces the theory behind Swiss turn machine operations. Students will learn about the parts of the machine, general maintenance, and machine setup. Students will learn how to operate a dual spindle Swiss turn machine.	3
MAC 2011	**Swiss Turn Programming I** Expands on operational techniques presented in Introduction to Swiss Turn Operations. Students will design for and program a single spindle machine with live tooling. Students will expand their skills using a Swiss turn machine by learning proper tool selection, feed and speed calculation, turning programming basics, milling programming basics, and variable manipulation.	3
MAC 2061	**5 Axis Mill Programming** Covers how to create a 5-axis milling machine program using Computer-aided Design and Computer-aided Manufacturing (CAD/CAM) software.	3
MAC 2060	**5 Axis Mill Operation** Covers preparation, operation and maintenance of the 5-axis milling machine.	3
MAC 2002	**CNC Turning Operations II** Covers skills in writing and editing advanced CNC Lathe programs. G&M codes, math, speeds and feeds, production processes including multi-part, process controls, and documentation associated with manufacturing will be covered.	3
MAC 2006	**CNC Milling Operations II** Further develops skills in writing and editing advanced CNC mill programs. G&M codes, math, speeds and feeds, production processes including multi-part, process controls, and documentation associated with manufacturing will be covered.	3
MAC 2045	**CAD/CAM 3D** Covers both the production and surfacing of three-dimensional geometry in a self-paced setting. Issues will be covered related to the production of wire frames, solids, surfaces, the joining of surfaces, joining of solids, managing construction planes, sweeping, rotating, and controlling parameter settings. A familiarity with Mastercam, CNC programming techniques, and CNC operations is recommended.	3
EGT 2305	**Geometric Dimensioning and Tolerance** Focuses on interpreting and applying geometric dimensioning and tolerancing (GDT) in machining or drafting per the ASME Y14.5 specification. Demonstrate and distinguish GDT through math formulas, tolerancing systems, modifiers, symbols, datums, and tolerances of form, profile, orientation, run-out and location. Students examine and interpret the generation of a working drawing, and how they are developed as a team effort between design, drafting, manufacturing and quality control.	3

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

RED ROCKS COMMUNITY COLLEGE
CONCURRENT ENROLLMENT

Graphic Design

High School Instructor: Peter Cunis & Scot Odendahl
Fall & Spring Enrollment
Prerequisites: N/A

Plans of Study:

These courses are part of the Multimedia Graphic Design Associate of Applied Science Degrees at Red Rocks Community College and may transfer to other colleges.
https://www.rrcc.edu/multimedia

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 1012 and MGD 1013 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.

Course	Description	Credits
MGD 1011	**Adobe Photoshop I** Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication Using Adobe Photoshop.	3
MGD 1012	**Adobe Illustrator I** Concentrates on the high-end capabilities of Adobe Illustrator as an illustration, design and vector drawing tool. Students learn how to use the tools to create digital artwork that can be used in web design, print media, and digital screen design. Course competencies and outline follow those set by the Adobe certified Associate exam in Visual Communication using Adobe Illustrator.	3
MGD 1013	**Adobe InDesign** Introduces students to InDesign, a page layout program which integrates seamlessly with other Adobe design programs. InDesign delivers creative freedom and productivity to DTP. Class discussions and independent projects supplement hands-on classroom work.	3
MGD 1014	**Typography**	3

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

	Introduces the history and concepts of typography as applied to graphic communications. Explores appropriate use of typography in a variety of design applications, emphasizing the basic design principles of typographic compositions and typesetting. Covers type recognition and typographic terms.	

Welding

High School Instructor: Tom Kienbaum
Fall and Spring Enrollment
Prerequisite: N/A

Plans of Study:

These courses are part of the Welding Associate of Applied Science Degree at Red Rocks Community College and may transfer to other colleges.
https://www.rrcc.edu/warrentech/welding

(In cooperation with and taught at Warren Tech) 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).*

Course	Description	Credits
WEL 1000	**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 1001	**Allied Cutting Process** 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
WEL 1002	**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 1003	**Basic Shielded Metal Arc Welding I** Covers performing safety inspections, making minor repairs, adjusting operating parameters, and operating SMAW equipment utilizing E-6010 electrodes. Layout procedures and practices will also be introduced.	4

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

WEL 1010	**Advanced Shielded Metal Arc Welding I** 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 1024	**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 2001	**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 2002	**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 2003	**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 2004	**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 2024	**Advanced Gas Tungsten Arc Welding II** 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 2050	**Layout and Fabrication** Develops welding and associated skills in the use of drawings and blueprints in planning. Includes designing and layout projects.	4
Outdoor Leadership **High School Instructor: Peter Nelson and Ashley Anderson**		

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

Fall & Spring Enrollment
Prerequisites: N/A

Plans of Study:

These courses are part of the Introduction to Outdoor Education Certificate at Red Rocks Community College and may transfer to other colleges.
https://www.rrcc.edu/outdoor-education

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.

Earn a RRCC Certificate:

Successful completion of all courses (excluding OUT 1205) earns an *Introduction to Outdoor Education Certificate.*

Course	Description	Credits
OUT 2043	**Wilderness First Aid** Provides limited medical information to cope with basic wilderness emergencies.	1
PRA 2018	**Outdoor Leadership** 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 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.	3
OUT 1200	**Wilderness Ethics** Emphasizes the motivation, aesthetics, and ethics of wilderness. Viewpoints to be examined include Native American, Western, historic, and those of modern environmental writers.	2
OUT 1120	**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 1050	**Backcountry Cooking** Focuses on menu planning, nutritional requirements for wilderness camping, and meal preparations. Includes cooking a backcountry meal.	1

*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.
*Course offerings subject to change based on instructor availability and approval and required class percentage participation: https://www.rrcc.edu/high-school-relations/credits-at-highschool

OUT 1030	**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 1010	**Wilderness Survival Skills** This course emphasizes the physiological, psychological and practical principles of survival. Survival equipment, wilderness improvising techniques, and wilderness dangers are included.	3
OUT 1510	**Rock Climbing I** Introduces basic rock climbing, improving dexterity, problem solving skills and the physical work capacity of an individual. Enables the student to gain an understanding of the general principles of climbing; how equipment works and how it is used; basic climbing skills and techniques; safety and climbing etiquette and terminology.	2
OUT 1205	**Leave No Trace Trainer Certification** Introduces the student to the principles of Leave No Trace and prepares students to teach Leave No Trace curriculum in a variety of outdoor and urban settings. This class is a must for guides, outfitters, outdoor educators, agency employees, scout/youth group leaders, or anyone who cares about minimizing impact on the Colorado backcountry.	2
OUT 1540	**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
OUT 1530	**Technical Canyoneering** Introduces students to a variety of travel techniques for non-technical and technical canyon environments. Topics include: weather, canyon geography, navigation, group management and safety, technical rope work, climbing skills and self-rescue. A variety of wet and dry canyon travel techniques will be practices, including: walking, scrambling, climbing, rappelling, jumping and swimming. Leave No Trace techniques in a desert canyon environment as well as a general knowledge of natural history and cultural history of the region will be emphasized.	2
OUT 1520	**Ice Climbing I** Introduces technical (roped) ice climbing, including equipment selection and safety, knots, belaying and climbing, rappelling and climbing safety.	1
OUT 2044	**Wilderness First Responder**	4

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	Is intended for outdoor enthusiasts and professionals who travel, recreate, and work in remote environments. This course focuses on the prevention, assessment, and treatment of injuries and illnesses common to backcountry travel as well as how to manage a rescue. The course introduces patient assessment, standards of care, team dynamics, and critical thinking used during wilderness emergencies.	
OUT 2220	**Outdoor ED Leadership** Explores outdoor facilitation and education as a career choice. This course includes opportunities to examine supervisory strategies of outdoor program participants, develop outcomes-based curriculum, experience working as a member of a team, explore multiple communication tools, and uphold the vision of an established program.	3
OUT 1670	**Avalanche Safety I** Introduces the latest terms, technology and practices in the field of avalanche safety. Topics discussed include different types of avalanches, avalanche terrain, avalanche rescue, trip planning and gathering field observations. Emphasis is placed on using the avalanche bulletin to make sound terrain decisions. This course meets the American Avalanche Association Recreational Level 1 Avalanche Course guidelines.	1
REC 1000	**Introduction to Recreation** Studies the history, principles, philosophy, and contemporary problems and trends of recreation and their influence upon today`s American society.	2
REC 2010	**Principles Outdoor Recreation** Includes lecture and practical outdoor experience relating to problems and trends in outdoor recreation.	3
OUT 1210	**Risk Management for Outdoor Professionals** Introduces risk management in the outdoor environment. Students will gain a better understanding of the inherent risks associated with various outdoor activities. They will learn how to analyze and minimize those risks, how to establish emergency protocols to react to those risks, and how to take the proper steps to resolve the consequences from those risks. After learning to identify, assess and reduce the risk, students will write a risk management plan specific to their area of interest. This course will cover outdoor leadership skills and delve into backcountry emergency situations and scenarios.	1

Computer Science and Cybersecurity

Instructor: Bill Heldman
Fall and Spring Enrollment
Prerequisites: N/A

Plans of study:

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These courses are part of the Computer Information Systems Associate of Applied Science Degree at Red Rocks Community College and may transfer to other colleges.

https://www.rrcc.edu/computer-technology

Course	Description	Credits
CSC 1019	**Intro to Programming** Focuses on a general introduction to computer programming. Emphasizes the design and implementation of structured and logically correct programs with good documentation. Focuses on basic programming concepts, including numbering systems, control structures, modularization, and data processing. A structured programming language is used to implement the student`s program designs.	3
CNG 1021	**Computer Tech I: A+** Provides students with an in-depth look at personal computer hardware, introduces networking concepts, and covers operational procedures and troubleshooting, all of which are necessary for a successful entry-level computer service technician position. Provides extensive hands-on work with computer systems, PC setup and configuration, and basic maintenance and troubleshooting. This course helps prepare you for the first CompTIA A+ Exam.	4
CNG 1022	**Computer Tech II: A+** Provides students with an in-depth look at desktop and mobile Operating System support, maintenance, and troubleshooting, and an overview of security concepts, and interpersonal skills, all of which are necessary for a successful entry-level computer service technician position. Provides extensive hands-on work with current operating systems, including using common GUI and command line tools, registry editing, system backup and recovery, and advanced troubleshooting. This course helps prepare you for the second CompTIA A+ Exam.	4
CNG 1024	**Networking I: Network +** Provides students with the knowledge necessary to understand, identify, and perform necessary tasks involved in 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.	3
CNG 1025	**Networking II: Network +** 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 1042	**Introduction to Cloud Computing** Educates students on the differences between today's PC / server-based networks and cloud computing. Students investigate the benefits of cloud computing, cloud	3

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	models and solutions, and deployment methods. Students study hardware, storage, thin clients and virtualization in the cloud. The course also introduces students to cloud applications and cloud-based office productivity software. Students learn how they can apply cloud computing to address corporate information technology challenges.	
CNG 1032	**Networking Security Fundamental** Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, e-mail, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery, and business continuity. Computer forensics is introduced.	3
CNG 1033	**Firewalls/Network Security** Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.	3

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