

# Warren Tech

# **Concurrent Enrollment Courses**

| Advanced 3D Printing Technology<br>Instructor: Matthew Brown<br>Spring Enrollment<br>Prerequisites: N/A |  |   |  |
|---|--|---|--|
|   | Campus: Warren Tech North  |   |  |
|   | SolidWorks/Mechanical  |   |  |
| CAD 2455<br>Year 1  | Introduces parametric feature-based solid modeling 3D concepts to build<br>confidence in 3D thinking and progresses to three-dimensional<br>parameters. This course provides instruction on how to construct, modify,<br>and manage complex parts in 3D space as well as to produce 2D<br>drawings from the 3D models. | 3 |  |
| CAD 2660<br>Year 1  | <b>3D Printing</b><br>Provides the student with the ability to blend the virtual and real design<br>worlds together through the use of 3D CAD Modeling, and 3D Printing.   | 3 |  |
| CAD 2661<br>Year 2  | Advanced 3D Printing<br>Provides the student with the ability to create Advanced 3D solid models<br>using 3D printing and 3D Scanning technology and various CAD software<br>programs.   | 3 |  |
| CAD 2694<br>Year 2  | <b>3D Scanning and Modeling</b><br>Exposes students to 3D scanning and modeling. Students will manipulate<br>various types of 3D scanning technology and create CAD models using<br>scanning software and other CAD programs.  | 4 |  |

# **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.



## **Campus: Warren Tech Central**

#### 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-technologydegrees-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.  | 4       |
|          | 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. |         |
| ACT 1010 | Safety in Collision Repair<br>Introduces the student to safety techniques and operation as it relates to shop<br>safety and industry standards. The student is exposed to regulations and<br>collision shop operations. In addition, the student becomes involved with VICA,<br>developing writing and speaking skills.   | 2       |
| ACT 1011 | Metal Welding and Cutting   | 3       |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



|          | 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.   |   |
|----------|--|---|
| ACT 1021 | Non-Structural Repair Preparation<br>Covers the basic characteristics of preparation for automotive repair. Students<br>familiarize themselves with damage analysis, extent of damage and the<br>sequence of repair. Focuses on removal of vehicle components and protection<br>of panels along with storage and labeling of parts. Safety procedures and<br>equipment use are included.   | 3 |
| ACT 1022 | Panel Repair & Replacement<br>Covers straightening techniques including tension pulls/stress relief, metal<br>finishing, metal shrinking and use of fillers. Emphasizes the identification,<br>handling and replacement of parts such as adjustment and alignment of bolt-on<br>parts, fixed parts and accessories. Training covers the use of adhesives, sound<br>deadeners and welding methods performed during repairs.                                       | 3 |
| ACT 1023 | Metal Finishing & Body Filling<br>Develops skills in metal finishing, metal shrinking, and the use of cosmetic<br>fillers. Emphasis is placed on the use of proper tools required to perform these<br>tasks, including use, selection and safety procedures for tools and equipment<br>selected. Paint less Dent Repair Tools will also be introduced in this course<br>along with beginning level repair techniques.  | 3 |
| ACT 1024 | <b>Exterior Panel Replacement (Weld-on)</b><br>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<br>Focuses on methods of frame measurement using dimension charts and<br>service manuals. Includes the use of self-centering gauges and mechanical and<br>electronic measuring. Appropriate terms and definitions of vehicle structures<br>and vehicle diagnosis is covered including identification and analysis of<br>damage. Includes the techniques for basic hook ups and safety procedures<br>used in making corrective pulls. | 3 |
| ACT 1032 | Structural Damage Repair<br>Continues the study and application of frame measurement and repair. The<br>student applies methods found in dimension charts and service manuals for<br>vehicle diagnosis and straightening. Training includes the replacement of a   | 3 |



|          | structural panel with the identification of damaged suspension components replaced according to manufacturer's recommendations.  |   |
|----------|--|---|
| ACT 1041 | Refinishing Safety   | 1 |
|          | Covers correct use of safety procedures used in refinishing. Proper fit and use<br>of various types of protective equipment is emphasized. The identification of<br>tools and equipment, with use and maintenance is covered including national<br>guidelines for proper disposal and handling of hazardous materials.                                 |   |
| ACT 1042 | Surface Preparation I  | 2 |
|          | Performs surface preparation for refinishing including cleaning, sanding, feather<br>edging, chemical treatment of bare materials and priming. The application of<br>primers includes rationale and use of colored primers and sealers. In addition,<br>the course will cover spot-priming for repaired areas.   |   |
| ACT 1043 | Spray Equipment Operation  | 2 |
|          | Covers the inspection, cleaning and determination of the condition of spray<br>guns and related equipment. Students learn skills for adjusting spray guns by<br>setting-up and testing spray gun operations.   |   |
| ACT 1044 | Refinishing I  | 2 |
|          | Provides the knowledge needed for application and use of automotive paint<br>systems. Course includes locating color codes, mixing formulas, matching and<br>selections of materials. Proper paint gun use and adjustments is taught for the<br>product being applied. In addition, the student practices correct masking and<br>detailing techniques. |   |
| ACT 1051 | Plastics & Adhesives I   | 1 |
|          | 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  |   |
| ACT 1070 | Automotive Collision Technology Lab Exp. I   | 3 |
|          | Designed to prepare the student to perform basic tasks for a specialized area in a controlled instructional lab.   |   |
| ACT 1071 | Automotive Collision Technology Lab Exp. II  | 3 |
|          | 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.  |   |
|          |  |   |



|          | Initiates written estimates on damaged vehicles. Students learn shop<br>management including work orders, ordering supplies, operating costs,<br>timecards, shop liabilities, employee's safety and insurance management<br>issues.  |   |
|----------|--|---|
| ACT 2011 | Metal Welding & Cutting II   | 2 |
|          | Covers mig welding procedures of seam weld, stitch welds and destructive<br>testing. Resistance spot welding, which includes two-sided spot weld, plasma<br>cutting, safety, materials, and equipment and operating procedures, with<br>emphasis on shop safety are also presented.  |   |
| ACT 2041 | Paint Defects  | 3 |
|          | Covers paint defects. Emphasizes the causes of paint defects with methods to<br>cure problems during and after refinishing procedures. Students learn to<br>identify the proper surface preparations to apply prior to refinishing. Training<br>includes using paint equipment and determining paint film thickness with<br>proper temperatures for refinishing. |   |
| ACT 2042 | Surface Preparation II   | 2 |
|          | 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.   |   |
| ACT 2043 | Refinishing II   | 2 |
|          | 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.   |   |
| ACT 2044 | Final Detail   | 2 |
|          | Focuses on the detailing procedures in paint refinishing of vehicles. Methods<br>and techniques are specialized to enhance painting skills. Transfers and tapes<br>methods with decals etc. are demonstrated.  |   |

# **Automotive Customization**

High School Instructor: Christopher Small Fall & Spring Enrollment Prerequisites: N/A Campus: Warren Tech Central

Plans of Study:

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



These courses are part of the Auto Customization Applied Science Degree at Red Rocks Community College and may transfer to other colleges <u>https://www.rrcc.edu/warrentech/auto-service-</u> 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 (3<sup>rd</sup> year option).

| Course   | Description   | Credits |
|----------|---|---------|
| ACT 1001 | Introduction to Automotive Collision Tech.  | 4       |
|          | 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. |         |
| ACT 1010 | Safety in Collision Repair  | 2       |
|          | 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.  |         |
| ACT 1011 | Metal Welding and Cutting   | 3       |
|          | 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.  |         |
| ACT 1022 | Panel Repair & Replacement  | 3       |
|          | Covers straightening techniques including tension pulls/stress relief, metal<br>finishing, metal shrinking and use of fillers. Emphasizes the identification,<br>handling and replacement of parts such as adjustment and alignment of bolt-on<br>parts, fixed parts and accessories. Training covers the use of adhesives, sound<br>deadeners and welding methods performed during repairs.  |         |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



| ACT 1023 | Metal Finishing & Body Filling  | 3 |
|----------|---|---|
|          | Develops skills in metal finishing, metal shrinking, and the use of cosmetic<br>fillers. Emphasis is placed on the use of proper tools required to perform these<br>tasks, including use, selection and safety procedures for tools and equipment<br>selected. Paint less Dent Repair Tools will also be introduced in this course<br>along with beginning level repair techniques. |   |
| ACT 1041 | Refinishing Safety  | 1 |
|          | Covers correct use of safety procedures used in refinishing. Proper fit and use<br>of various types of protective equipment is emphasized. The identification of<br>tools and equipment, with use and maintenance is covered including national<br>guidelines for proper disposal and handling of hazardous materials.  |   |
| ACT 1042 | Surface Preparation I   | 2 |
|          | Performs surface preparation for refinishing including cleaning, sanding, feather<br>edging, chemical treatment of bare materials and priming. The application of<br>primers includes rationale and use of colored primers and sealers. In addition,<br>the course will cover spot-priming for repaired areas.  |   |
| ACT 1043 | Spray Equipment Operation   | 2 |
|          | 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.  |   |
| ACT 1044 | Refinishing I   | 2 |
|          | Provides the knowledge needed for application and use of automotive paint<br>systems. Course includes locating color codes, mixing formulas, matching and<br>selections of materials. Proper paint gun use and adjustments is taught for the<br>product being applied. In addition, the student practices correct masking and<br>detailing techniques.                              |   |
| ACT 1060 | Custom Painting   | 3 |
|          | This course provides instruction in basic custom paint application such as pearl paints, candy colors, metal flakes, etc.   |   |
| ACT 1065 | Auto Body Customizing I   | 3 |
|          | Covers tool identification welding (mig and resistance), plasma cutting, metal<br>finishing, metal shrinking and the use of cosmetic fillers. Emphasis is placed on<br>the use of proper tools required to perform body customizing tasks, including<br>use, selection and safety procedures for tools and equipment selected.  |   |
| ACT 1066 | Auto Body Customizing II  | 3 |



|                      | Covers modification of vehicle and vehicle parts such as Chopping, measuring. realigning, fabricating, recessing, shaping etc.  |   |
|----------------------|---|---|
| ACT 1067             | Auto Customizing II   | 3 |
|                      | Covers the completion of modifications that were started in Automotive Body Customizing II along with the addition of body molding kits.  |   |
| ACT 1070             | Automotive Collision Technology Lab. Exp. I   | 3 |
|                      | Designed to prepare the student to perform basic tasks for a specialized area in a controlled instructional lab.  |   |
| ACT 1071             | Auto Collision Technical Lab Exp. II  | 1 |
|                      | 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.   |   |
| ACT 2005             | Estimating and Shop Management  | 3 |
|                      | Initiates written estimates on damaged vehicles. Students learn shop<br>management including work orders, ordering supplies, operating costs,<br>timecards, shop liabilities, employee's safety and insurance management<br>issues.   |   |
| ACT 2011             | Metal Welding/Cutting II  | 2 |
|                      | 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.  |   |
| ACT 2043             | Refinishing II  | 2 |
|                      |   |   |
|                      | 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             | blend panels working with the latest finishes and paints. Special coatings and  | 2 |
| AUT 1009             | blend panels working with the latest finishes and paints. Special coatings and procedures are covered in this course.   | 2 |
| AUT 1009<br>AUT 1016 | blend panels working with the latest finishes and paints. Special coatings and<br>procedures are covered in this course.High Performance Suspension & Chassis DesignIntroduces the fundamentals of chassis types and components. Includes<br>steering and suspension component theory, tire and wheel theory, chassis<br>design and geometry theory as applied to oval track, drag race, and road race                    | 2 |
|                      | blend panels working with the latest finishes and paints. Special coatings and procedures are covered in this course.         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. |   |



|          | Introduces a variety of techniques used in the forming of racecar body panels<br>made up of various types of materials. Emphasizes sheet steel, aluminum, and<br>composite plastics. Students practice the fabrication and finishing of body<br>panels. Tools and equipment typically used in the industry are also covered. |   |
|----------|--|---|
| ASE 1002 | Introduction to the Automotive Shop Prepares the incoming automotive student to work in the shop safely and gain   | 2 |
|          | familiarity with the shop and common equipment.  |   |
| ASE 1020 | <b>Basic Auto Electricity</b><br>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 | <b>General Engine Diagnosis</b><br>Teaches students how to perform basic engine diagnosis to determine<br>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 Campus: Warren Tech Central

## 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 <u>https://www.rrcc.edu/warrentech/auto-service-</u> 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 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 (3<sup>rd</sup> year option).

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



| Course   | Description  | Credits |
|----------|--|---------|
| ASE 1001 | Auto Shop Orientation  | 2       |
|          | Provides students with safety instruction in the shop and on the Automobile.<br>Emphasis is placed on the proper use and care of test equipment, precision<br>measuring and machining equipment, gaskets, adhesives, tubing, wiring, jacks,<br>presses, and cleaning equipment and techniques. |         |
| ASE 1002 | Introduction to the Automotive Shop  | 2       |
|          | Prepares the incoming automotive student to work in the shop safely and gain familiarity with the shop and common equipment.   |         |
| ASE 1010 | Brakes I   | 2       |
|          | Covers basic operation of automotive braking systems. This includes operation, diagnosis and basic repair of disc, drum and basic hydraulic braking systems.   |         |
| ASE 1011 | Automotive Brake Service II  | 2       |
|          | 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.  |         |
| ASE 1020 | Basic Automotive Electricity   | 2       |
|          | Introduces vehicle electricity and includes basic electrical theory, circuit designs, and wiring methods. It also focuses on multimeter usage and wiring diagrams.   |         |
| ASE 1022 | Automotive Electricity Safety Systems  | 1       |
|          | Teaches the student to Identify operation of vehicle lighting systems,<br>Supplemental Inflatable Restraints (SIR), windshield wiper, driver warning<br>systems and vehicle accessories.   |         |
| ASE 1023 | Starting and Charging Systems  | 2       |
|          | 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.   |         |
| ASE 1030 | General Engine Diagnosis   | 2       |
|          | Teaches students how to perform basic engine diagnosis to determine condition of engine. This will include engine support systems.   |         |
| ASE 1034 | Automotive Fuel and Emissions Systems I  | 2       |



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



| ASE 2064 | Introduction to HVAC Systems   | 1 |  |
|----------|--|---|--|
|          | Covers basic operation of the Heating and Air Conditioning components. |   |  |

| High School Instructor: Christopher Michelson<br>Fall & Spring Enrollment<br>Prerequisites: N/ACampus: Warren Tech CentralPlan of Study: These courses can be applied towards Business degrees and certificates at Red<br>Rocks Community College and may transfer to other colleges. http://www.rrcc.edu/businessBUS 1002Entrepreneurial Operations<br>business. This course covers basic concepts of business law, marketing,<br>finance and operations. It guides the development of an effective<br>businesses. Data and prepares students to launch and sustain their own<br>businesses.3BUS 1015Focuses on the operation of the American business system. Covers<br>fundamentals of the economy, careers and opportunities, marketing,<br>management, production, governmental regulations, tools of business<br>and social responsibilities.3BUS 2017Emphasizes effective business writing and cover letters, memoranda,<br>reports, application letters, and resumes. Includes the fundamentals of<br>business communication and an introduction to international<br>communication.3MAR 2016Presents the analysis of theoretical marketing processes and the<br>strategies of product development, pricing, promotion and distribution,<br>and their applications to businesses and the individual consumer.3 |          | Business Administration   |   |  |
|---|----------|---|---|--|
| Plan of Study: These courses can be applied towards Business degrees and certificates at Red<br>Rocks Community College and may transfer to other colleges. http://www.rrcc.edu/businessBUS 1002Entrepreneurial Operations<br>Explores the essential requirements for starting and operating a<br>business. This course covers basic concepts of business law, marketing,<br>finance and operations. It guides the development of an effective<br>business plan and prepares students to launch and sustain their own<br>businesses.3BUS 1015Introduction to Business<br>Focuses on the operation of the American business system. Covers<br>fundamentals of the economy, careers and opportunities, marketing,<br>management, production, governmental regulations, tools of business<br>and social responsibilities.3BUS 2017Emphasizes effective business writing and cover letters, memoranda,<br>reports, application letters, and resumes. Includes the fundamentals of<br>business communication.3MAR 2016Principles of Marketing<br>Presents the analysis of theoretical marketing processes and the<br>strategies of product development, pricing, promotion and distribution,<br>and their applications to businesses and the individual consumer.3   |          | Fall & Spring Enrollment  |   |  |
| Rocks Community College and may transfer to other colleges. http://www.rrcc.edu/businessBUS 1002Entrepreneurial OperationsBUS 1002Explores the essential requirements for starting and operating a<br>business. This course covers basic concepts of business law, marketing,<br>finance and operations. It guides the development of an effective<br>businesses plan and prepares students to launch and sustain their own<br>businesses.BUS 1015Introduction to BusinessFocuses on the operation of the American business system. Covers<br>fundamentals of the economy, careers and opportunities, marketing,<br>management, production, governmental regulations, tools of business<br>and social responsibilities.BUS 2017Emphasizes effective business writing and cover letters, memoranda,<br>reports, application letters, and resumes. Includes the fundamentals of<br>business communication and an introduction to international<br>communication.MAR 2016Principles of Marketing<br>Presents the analysis of theoretical marketing processes and the<br>strategies of product development, pricing, promotion and distribution,<br>and their applications to businesses and the individual consumer.   |          | Campus: Warren Tech Central   |   |  |
| BUS 1002Explores the essential requirements for starting and operating a<br>business. This course covers basic concepts of business law, marketing,<br>finance and operations. It guides the development of an effective<br>business plan and prepares students to launch and sustain their own<br>businesses.3BUS 1015Introduction to Business<br>Focuses on the operation of the American business system. Covers<br>fundamentals of the economy, careers and opportunities, marketing,<br>management, production, governmental regulations, tools of business<br>and social responsibilities.3BUS 2017Business Communication<br>Emphasizes effective business writing and cover letters, memoranda,<br>reports, application letters, and resumes. Includes the fundamentals of<br>business communication and an introduction to international<br>communication.3MAR 2016Presents the analysis of theoretical marketing processes and the<br>strategies of product development, pricing, promotion and distribution,<br>and their applications to businesses and the individual consumer.3  |          |   |   |  |
| BUS 1002business. This course covers basic concepts of business law, marketing,<br>finance and operations. It guides the development of an effective<br>business plan and prepares students to launch and sustain their own<br>businesses.3BUS 1015Introduction to Business<br>Focuses on the operation of the American business system. Covers<br>fundamentals of the economy, careers and opportunities, marketing,<br>management, production, governmental regulations, tools of business<br>and social responsibilities.3BUS 2017Emphasizes effective business writing and cover letters, memoranda,<br>reports, application letters, and resumes. Includes the fundamentals of<br>business communication.3MAR 2016Principles of Marketing<br>strategies of product development, pricing, promotion and distribution,<br>and their applications to businesse and the individual consumer.3  |          | Entrepreneurial Operations  |   |  |
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| BOS 1015fundamentals of the economy, careers and opportunities, marketing,<br>management, production, governmental regulations, tools of business<br>and social responsibilities.3BUS 2017Business Communication<br>Emphasizes effective business writing and cover letters, memoranda,<br>reports, application letters, and resumes. Includes the fundamentals of<br>business communication and an introduction to international<br>communication.3MAR 2016Principles of Marketing<br>strategies of product development, pricing, promotion and distribution,<br>and their applications to businesses and the individual consumer.3  |          | Introduction to Business  |   |  |
| BUS 2017Emphasizes effective business writing and cover letters, memoranda,<br>reports, application letters, and resumes. Includes the fundamentals of<br>business communication and an introduction to international<br>communication.3MAR 2016Principles of Marketing<br>Presents the analysis of theoretical marketing processes and the<br>strategies of product development, pricing, promotion and distribution,<br>and their applications to businesses and the individual consumer.3  | BUS 1015 | fundamentals of the economy, careers and opportunities, marketing, management, production, governmental regulations, tools of business  | 3 |  |
| BUS 2017       reports, application letters, and resumes. Includes the fundamentals of business communication and an introduction to international communication.       3         MAR 2016       Principles of Marketing       3         Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to businesses and the individual consumer.       3         Principles of Management       4  |          | Business Communication  |   |  |
| MAR 2016       Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to businesses and the individual consumer.       3         Principles of Management       9  | BUS 2017 | reports, application letters, and resumes. Includes the fundamentals of business communication and an introduction to international   | 3 |  |
| strategies of product development, pricing, promotion and distribution,<br>and their applications to businesses and the individual consumer.  |          | Principles of Marketing   |   |  |
| MAN 2026 Principles of Management 3   | MAR 2016 | strategies of product development, pricing, promotion and distribution,   | 3 |  |
|   | MAN 2026 | Principles of Management  | 3 |  |



| Provides an overview of the principles of management. Emphasis is on<br>the primary functions of planning, organizing, staffing, leading and<br>controlling with a balance between the behavioral and operational |  |
|---|--|
| approaches.   |  |

# **Criminal Justice**

## High School Instructor: Valarie Purl Spring Enrollment Campus: Warren Tech North

**Prerequisite for all courses (any of the following scores or exemptions can be used): ACT Scores:** English 18

SAT Scores: Verbal 470

Accuplacer Next Gen: Writing 246

**High School Class Exemption:** 3.0 un-weighted high school GPA and passed H.S. English 11

or 12 with a B or better in both semesters.

Self-Guided Assessment: English self-guided assessment

Coursework completed with a grade of C or better may be applied towards the RRCC Criminal Justice Associate of Arts degree designated Criminal Justice Degree.

The Criminal Justice Program is designed for those seeking a career in the criminal justice field. If you have a felony conviction, or any kind of criminal or significant driving record, you may not be employable in the criminal justice field. The associate of art degree in criminal justice is articulated with all state criminal justice/criminology bachelor degree programs for those planning to continue in the criminal justice and criminology field. It is critical to consult with a criminal justice faculty advisor early in your college career to explore all your career options.

**Plan of Study:** This course is a part of the Criminal Justice AA Degree with Designation at Red Rocks Community College and may transfer to other colleges <u>https://www.rrcc.edu/criminal-justice/degree</u>

| Course   | Description   | Credits |
|----------|---|---------|
| CRJ 1010 | Intro to Criminal Justice   | 3       |
|          | Introduces students to the basic components of the criminal justice<br>system in the United States. Concepts of crime, crime data,<br>victimization, perspectives and views of crime, theory, and law are |         |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



|          |   | 1 |
|----------|---|---|
|          | discussed. Particular attention to the criminal justice process,<br>interaction and conflict between criminal justice agencies, and current<br>criminal justice issues are examined. This is a statewide Guaranteed<br>Transfer course in the GT-SS3 category.  |   |
| CRJ 1025 | Policing Systems  | 3 |
|          | Examines policing in the United States, including historical foundations,<br>emerging issues, and the relationship between law enforcement and the<br>community. The various types of law enforcement agencies, their<br>administrative practices, and the behavior of those involved in the<br>delivery of police services are examined from the perspective of<br>democratic values, racial and ethnic diversity, and societal perceptions<br>of police effectiveness. Career requirements, including current and<br>future trends, are also presented. |   |
| CRJ 1035 | Judicial Functions  | 3 |
|          | Provides an overview of the structure and function of the dual American<br>judicial system and the behavior of actors (judges/justices, lawyers, law<br>clerks, interest groups, etc.) within the system. Emphasis is placed on<br>the organization and administration of state and federal courts, criminal<br>court procedures, juries, selection of judges, decision-making behavior<br>of juries, judges and justices, and the implementation and impact of<br>judicial policies  |   |
| CRJ 1045 | Correctional Process  | 3 |
|          | Examines the history and total correctional process from law<br>enforcement through the administration of justice, probation, prisons,<br>correctional institutions, and parole. Also examines the principles,<br>theories, phenomena and problems of the crime, society, and the<br>criminal justice system from the perspective of criminology and the<br>criminal justice system in general. Emphasizes the role of sociology and<br>other interdisciplinary approaches to the field of corrections and<br>society's response.                         |   |
| SOC 2031 | Sociology-Deviant Behavior  | 3 |
|          | Critically examines various deviant categories and societal reactions to<br>deviance affecting diverse populations. Examines how sociologists study<br>deviance and the theories they use to explain it. Explains the ways social<br>institutions define deviance and attempt to control, change, or treat<br>those deviant behaviors, attitudes, and conditions.   |   |



# **PROGRAM NOT RUNNING IN 2024-2025**

# **Computer Science and Cybersecurity**

Instructor: Pending Fall and Spring Enrollment Campus: Warren Tech Central

Prerequisite (any of the following scores or exemptions can be used):

ACT: Math 19

**SAT:** Math 500

Accuplacer Next Gen: NGQA 240

**High School Class Exemption:** 3.0 un-weighted high school GPA and passed Algebra II or Geometry with a B or better in both semesters.

Self-Guided Assessment: Liberal arts math self-guided assessment

#### Plans of study:

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<u>https://www.rrcc.edu/computer-technology</u>

| Course   | Description  | Credits |
|----------|--|---------|
| CSC 1019 | Intro to Programming   | 3       |
|          | 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.   |         |
| CNG 1021 | Computer Tech I: A+  | 4       |
|          | Provides students with an in-depth look at personal computer hardware,<br>introduces networking concepts, and covers operational procedures and<br>troubleshooting, all of which are necessary for a successful entry-level<br>computer service technician position. Provides extensive hands-on work with<br>computer systems, PC setup and configuration, and basic maintenance and<br>troubleshooting. This course helps prepare you for the first CompTIA A+ Exam. |         |
| CNG 1022 | Computer Tech II: A+   | 4       |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



|          |  | 1 |
|----------|--|---|
|          | Provides students with an in-depth look at desktop and mobile Operating<br>System support, maintenance, and troubleshooting, and an overview of security<br>concepts, and interpersonal skills, all of which are necessary for a successful<br>entry-level computer service technician position. Provides extensive hands-on<br>work with current operating systems, including using common GUI and<br>command line tools, registry editing, system backup and recovery, and<br>advanced troubleshooting. This course helps prepare you for the second<br>CompTIA A+ Exam. |   |
| CNG 1024 | Networking I: Network +  | 3 |
|          | 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.   |   |
| CNG 1025 | Networking II: Network +   | 3 |
|          | 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.  |   |
| CNG 1042 | Introduction to Cloud Computing  | 3 |
|          | Educates students on the differences between today's PC / server-based<br>networks and cloud computing. Students investigate the benefits of cloud<br>computing, cloud models and solutions, and deployment methods. Students<br>study hardware, storage, thin clients and virtualization in the cloud. The course<br>also introduces students to cloud applications and cloud-based office<br>productivity software. Students learn how they can apply cloud computing to<br>address corporate information technology challenges.   |   |
| CNG 1032 | Networking Security Fundamental  | 3 |
|          | Delivers a comprehensive overview of network security, including general<br>security concepts. Communication Security is studied, including remote<br>access, e-mail, the Web, directory and file transfer, and wireless data.<br>Common network attacks are introduced. Cryptography basics are<br>incorporated, and operational/organizational security is discussed as it<br>relates to physical security, disaster recovery, and business continuity.<br>Computer forensics is introduced.   |   |
| CNG 1033 | Firewalls/Network Security   | 3 |
|          | 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.  |   |



# **Cosmetology: Hairstyling**

## High School Instructor: Kori Wyckoff and Rachael Lee Fall and Spring Enrollment Prerequisite: N/A Campus: Warren Tech Central

Plans of Study:

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

#### (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   | 1       |
|          | 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.                       |         |
| COS 1030 | Intro to Hair Styling   | 2       |
|          | Combines theory with the practical application of hairstyling. This course<br>covers roller placement, hair molding and shaping, pin curls, finger waves,<br>comb-out techniques, air forming, thermal straightening, or curling for short to<br>long hair. |         |
| COS 1020 | Intro to Haircutting  | 2       |
|          |   |         |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



|          | Introduces haircutting theory relevant to patron protection, angles, elevations,<br>and the analysis of hair textures as related to hair cutting procedures. This<br>course covers proper use and care of hair cutting implements, basic hair cutting<br>techniques using various cutting implements, and disinfection and sanitation<br>procedures as they relate to haircutting. |   |
|----------|--|---|
| COS 1040 | Intro to Chemical Texture  | 1 |
|          | Introduces a combination of theory and practice focusing on the analysis of hair<br>and scalp, proper equipment and product knowledge. Includes basic<br>techniques in permanent waving and chemical relaxing. Provides training in a<br>classroom or lab setting on mannequins or live models.  |   |
| COS 1010 | Intro to Hair Coloring   | 2 |
|          | 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.   |   |
| COS 1060 | Intro to Infection Control   | 2 |
|          | This course covers various methods of sanitation, disinfection; and principles of<br>workplace safety, infection control and prevention. Topics presented in this<br>course include: classroom study of bacteriology, chemistry of cleaning versus<br>disinfecting products that are used in the cosmetology industry, and<br>terminology dealing with infection control.          |   |
| COS 2050 | Business Management/Personal Skills/Ethics   | 1 |
|          | This course covers salon management business practices and the knowledge<br>and skills necessary to build a successful business. Topics covered in this<br>course include: basic business management, interpersonal skills, basic<br>techniques in salesmanship and customer services, job readiness skills, and<br>professional ethics.   |   |
| COS 1050 | Laws, Rules and Regulations  | 1 |
|          | This course covers laws, rules, and regulations governing the beauty industry in<br>Colorado and accountability for the student, licensed individual, salons, and<br>school owners.  |   |
| COS 1031 | Intermediate I: Hair Styling   | 2 |
|          | This course covers the accepted methods of styling hair, air forming, roller sets, finger waves, pin curls, braiding, and hair pressing.   |   |
| COS 1021 | Intermediate I: Hair Cutting   | 2 |
|          | 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.   |   |
| COS 1041                              | Intermediate I: Chemical Texture  | 1 |
|                                       | Emphasizes theory and practical application of chemical texture, including permanent waves and chemical relaxers, in a supervised salon setting.<br>Students will practice different wrapping techniques required by trend styles in a classroom or salon setting.  |   |
| COS 2003                              | Shampoo/Rinses/Conditioners II  | 1 |
|                                       | 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.  |   |
| COS 1011                              | Intermediate I: Hair Coloring   | 2 |
|                                       | 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.   |   |
| COS 1061                              | Intermediate I: Infection Control   | 1 |
|                                       | 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. |   |
| COS 2030                              | Intermediate II: Hair Styling   | 2 |
|                                       | This course covers accepted methods of styling hair, including: air forming,<br>roller sets, iron sets, finger waves, braiding and hair pressing. Students will<br>practice hairstyling techniques for client purposes in specialized classes or in a<br>supervised salon setting.  |   |
| COS 2020                              | Intermediate II: Hair Cutting   | 2 |
|                                       | 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.  |   |
| COS 2040                              | Intermediate II: Chemical Texture   | 1 |
|                                       | 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.   |   |



| COS 2010 | Intermediate II: Hair Coloring   | 2 |
|----------|--|---|
|          |  |   |
|          | 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.   |   |
| COS 2060 | Intermediate II: Infection Control   | 2 |
|          | 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. |   |
| COS 2031 | Advanced Hair Styling  | 1 |
|          | This course covers hairstyling theory and advanced techniques in all phases of<br>hair styling to prepare the student for employment. Training is a combination of<br>supervised salon work and specialized classes. Students will prepare for the<br>Colorado State Board Licensing Examination.  |   |
| COS 2011 | Advanced Hair Coloring   | 2 |
|          | This course covers advanced theory and practical techniques in haircoloring.<br>Course covers the recognition of color problems and color correction<br>procedures in preparation for the Colorado State Board Licensing Examination.<br>Topics in this course include: advanced techniques, color formulation, and<br>product knowledge.  |   |
| COS 2041 | Advanced Chemical Texture  | 1 |
|          | This course covers advanced techniques for chemical texture and current<br>industry standards of practice to prepare the student for employment and the<br>State Board Licensing Examination. Instruction is provided in specialized<br>classes or supervised salon setting.   |   |
| COS 2021 | Advanced Hair Cutting  | 2 |
|          | This course covers advanced haircutting techniques utilizing multiple cutting tools and emphasizes current fashion trends and preparation for the Colorado State Licensure examination.  |   |
| COS 2061 | Advanced Infection Control   | 1 |
|          | 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.                      |   |



| COS 2062 | Advanced II: Disinfection, Sanitation and Safety  | 3 |
|----------|---|---|
|          | This course is the extra hours/credits required for the hair stylist program, per<br>State Board of Colorado Barber/Cosmetology Board. Provides advanced<br>training on decontamination and safety practices in a supervised salon and/or<br>classroom setting. Examines advanced techniques that prepare the student for<br>employment. Includes student preparation for the State Board Licensing<br>Examination in decontamination and safety for all aspects of the industry. Study<br>of OSHA requirements for schools and salon are done in a theory or practical<br>setting. |   |

# **Cosmetology: Esthetics**

## High School Instructor: Stephanie Mora Fall & Spring Enrollment Prerequisite: N/A Campus: Warren Tech Central

#### Plans of Study:

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

#### (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.

| Description   | Credits  |
|---|--|
| Introduction to Skin Care   | 3  |
| This course covers the study of skin in both theory and practical applications for<br>skin care professionals. Topics included in the course are: skin structure and<br>function, massage manipulations while providing facials and the benefits<br>derived from a proper facial, and good skin care routines. Training is conducted<br>in a classroom or lab setting using manikins or models. |  |
| Intermediate to Skin Care   | 2  |
|   | Introduction to Skin Care<br>This course covers the study of skin in both theory and practical applications for<br>skin care professionals. Topics included in the course are: skin structure and<br>function, massage manipulations while providing facials and the benefits<br>derived from a proper facial, and good skin care routines. Training is conducted<br>in a classroom or lab setting using manikins or models. |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



|          | 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.   |   |
|----------|---|---|
| EST 1060 | Introduction to Disinfection, Sanitation & Safety<br>Introduces the various methods of disinfection, sanitation and safety as used<br>today in the industry. Classroom study of bacteriology and the terminology<br>dealing with disinfection, sanitation and safety.   | 2 |
| EST 1061 | Intermediate Disinfection, Sanitation and Safety<br>Presents theory and the daily utilization and practice of the proper methods of<br>disinfection, sanitation, and safety. Procedures as related to all phases of the<br>industry. Training is provided in a supervised (clinical) setting.   | 3 |
| EST 2010 | Advanced Skin Care<br>This course covers advanced techniques for massage, skin care, and lash/brow<br>tinting. Theory and practical procedures ready the student for employment and<br>preparation for State Board Licensing Examination. Instruction is provided in<br>specialized classes or in a supervised salon setting.   | 2 |
| EST 2011 | <b>Facial Make-Up</b><br>This course covers cosmetics and their functions for the skin care professional,<br>including the importance of color theory, facial types and skin tones as they<br>relate to facial makeup. Topics in this course include: Instruction from the basic<br>makeup application, corrective makeup procedures, and disinfection and<br>sanitation pertaining to all aspects of makeup. | 1 |
| EST 2012 | Hair Removal<br>This course covers in-depth study and practice of hair removal and the practice<br>of patron protection and safety. Training for general waxing and body waxing<br>procedures are provided. Demonstration of disinfection and sanitation as it<br>pertains to Colorado rules and regulations will be practiced.   | 3 |
| EST 2060 | Advanced Disinfecting, Sanitation and Safety<br>Provides advanced training on disinfection, sanitation, and safety is<br>incorporated in a supervised salon (clinical) setting. Advanced techniques will<br>ready the student for employment. Student preparation for the State Board<br>Licensing Examination in theory and practical procedures for disinfection,<br>sanitation and safety.                 | 2 |
| EST 1075 | Laws, Rules and Regulations<br>OR   | 1 |



|          | <b>Special Topics</b> (if COS 150 was earned for other Cosmetology program)<br>Provides students with a vehicle to pursue in depth exploration of special topics of interest.  |   |
|----------|--|---|
| EST 2075 | Business Management/ Personal Skills/ Ethics<br>OR<br>Special Topics (if COS 250 was earned for other Cosmetology<br>program)  | 1 |
|          | This course covers salon management business practices and the knowledge<br>and skills necessary to build a successful business. Topics covered in this<br>course include: basic business management, interpersonal skills, basic<br>techniques in salesmanship and customer services, job readiness skills, and<br>professional ethics. |   |

# Cosmetology: Nail Technology

# High School Instructor: Karen Kennedy Fall & Spring Enrollment Prerequisite: N/A Campus: Warren Tech Central

## Plans of Study:

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

(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<br>OR | 1       |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



|          | <b>Special Topics</b> (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  | 1 |
|          | <b>OR</b><br><b>Special Topics</b> (if COS 250 was earned for other Cosmetology program)  |   |
|          | Provides students with a vehicle to pursue in depth exploration of special topics of interest.  |   |
| NAT 1008 | Intro to Manicure/Pedicure/Artificial Nails   | 3 |
|          | Provides a basic introduction into the proper use of implements used in<br>manicures, pedicures and artificial nails. Theory and practical application of<br>proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and<br>terminology dealing with manicures, pedicures and artificial nails is covered.<br>Training is done in a classroom or lab setting using models or other techniques.   |   |
| NAT 1010 | Introduction to Nail Care   | 3 |
|          | 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.   |   |
| NAT 1011 | Intermediate Nail Care  | 2 |
|          | This course covers theory and practical application dealing with different types<br>of manicures, pedicures, nail art, and massage techniques. Theory and<br>practical application of procedures, products, nail shapes, and maintenance of<br>natural nails is covered. Students learn to recognize different nail disorders and<br>their proper treatment. Training is done in a specialized class or in supervised<br>salon (clinical) setting, using models or customer service. Proper sanitation and<br>sterilization as it pertains to all aspects of manicures, pedicures, and nail art is<br>taught. |   |
| NAT 1058 | Intermediate Mani/Pedi/Artificial Nails   | 2 |
|          | Presents theory and practical application dealing with different types of<br>manicures, pedicures and massage techniques. Theory and practical<br>application of procedures, products, nail shapes and maintenance of artificial<br>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.   |   |
|----------|--|---|
| NAT 1059 | Intermediate Mani/Pedi/Artificial Nails II<br>Presents theory and practical application dealing with different types of<br>manicures, pedicures and massage techniques. Theory and practical<br>application of procedures, products, nail shapes and maintenance of artificial<br>nails is covered. Students learn to recognize different nail disorders and their<br>proper treatment. Training is done in a specialized class or in supervised salon<br>(clinical) setting, using models or customer service.  | 2 |
| NAT 2008 | Advanced Mani/Pedi/Artificial Nails<br>Provides advanced theory and practical application of manicures, pedicures<br>and nail art techniques. Theory and advanced practical techniques of silk<br>wraps, tip overlays, acrylics and product knowledge to ready the student for<br>employment is presented. Instruction is provided in specialized classes or in<br>supervised salon (clinical) setting using models or customer service. Student<br>preparation for state board licensing examination pertaining to manicures and<br>pedicures is covered. | 4 |
| NAT 2010 | Advanced Nail Care<br>This course covers advanced theory and practical application dealing with<br>different types of manicures, pedicures, massage techniques, and nail art.<br>Topics included in this course are: practical application of procedures,<br>products, nails shapes and maintenance of the natural nails. Course will cover<br>client education on different nail disorders and their proper treatment. Training<br>is done in a specialized class or in supervised salon (clinical) setting, using<br>models or customer service.         | 2 |

# **Culinary Arts High School**

## Instructor: Emily Duncan Fall & Spring Enrollment Prerequisites: N/A Campus: Warren Tech Central

#### Earn a RRCC Certificate:

Successful completion of the three courses (CUA 1001, CUA 1021 and CUA 2078) will lead to an *Introduction to Culinary Arts Certificate*.

| Course | Description | Credits |
|--------|-------------|---------|
| Course | Description | Creatts |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



| CUA 1001 | Food Safety and Sanitation   | 2 |
|----------|--|---|
|          | Introduces the student to the basic rules of sanitation, food-borne illnesses,<br>safe food temperatures, safe food handling techniques, the HACCP Program,<br>pest control procedures, and local/state health rules and regulations for food<br>service operations. At the completion of the course students take a nationally<br>recognized test from the Education Foundation of the National Restaurant<br>Association. If passed with a score of 75% or more, students receive a<br>Certificate of from the Education Foundation. |   |
|          |  |   |
| CUA 1021 | Introduction to Food Production Principles and Practices   | 1 |
|          | Provides students with the fundamental principles of commercial kitchen<br>operations including safety and sanitation applications, use and care of<br>equipment, tools, utensils and knives, recipe use and conversion, organization<br>of work, and basic cooking methods. The class meets a minimum of 22.5 hours.  |   |
| CUA 1022 | Intro Stocks, Soups & Sauces   | 1 |
|          | Focuses on the fundamental principles of stocks, soups, sauces, gravies and thickening agents. Enables students to produce a variety of these products in the commercial kitchen incorporating practice in the use of tools, utensils, equipment and application of safety and sanitation practices. Students apply pre-preparation skills and efficient organization of work techniques. Meets a minimum of 22.5 hours.   |   |
| CUA 1031 | Starch/Pasta/Casserole/Grain   | 1 |
|          | Provides the basics of preparing and/or cooking potatoes, starches,<br>legumes and pastas. Enables students to prepare and cook a variety<br>of casseroles and grain products using a commercial kitchen for their<br>preparation area. Allows students to apply pre-preparation skills and<br>efficient organization of work techniques. Class meets a minimum of<br>22.5 hours.  |   |
| CUA 1041 | Baking: Principles/Ingredients   | 1 |
|          | Provides the student with the fundamentals of baking terminology, principles of baking, and the characteristics and functions of the main ingredients used in bakery production. Orients student to  |   |



|          |  | [] |
|----------|--|----|
|          | commercial equipment, tools, and utensils used in baking. Meets for<br>a minimum of 22.5 hours.  |    |
| CUA 1042 | Basic Yeast-Raised Quick Breads  | 1  |
|          | Provides the student with the fundamentals of basic yeast-raised<br>production and quick breads. Enables the student to produce white<br>bread, rolls, variety grain breads, specialty breads, sweet yeast-<br>raised products, and quick breads in a commercial kitchen. Meets for<br>a minimum of 22.5 hours.  |    |
| CUA 1044 | Baking Applications  | 1  |
|          | Serves as the practical vehicle for the student to apply basic baking<br>principles and practices to the production of yeast breads, quick<br>breads, cakes, icings, pastries, pies, and cookies. Focuses on the<br>preparation of a variety of baked goods in a commercial kitchen<br>according to a baking production schedule. Enables the student to<br>demonstrate comprehensive knowledge of products as well as speed<br>and efficiency in the production of quality baked goods. Meets a<br>minimum of 22.5 hours. |    |
| CUA 1056 | Nutrition/Hospitality Prof   | 3  |
|          | Provides students with the fundamentals of human nutrition.<br>Focuses on the nutritional needs of humans throughout their life<br>cycle as well as those with special dietary needs. Students may take<br>a nationally recognized test from the Educational Foundation of the<br>National Restaurant Association.   |    |
| CUA 1057 | Menu Planning  | 3  |
|          | Introduces the student to planning menus and integrating them into<br>foodservice operations. Equips the student with a working knowledge<br>of the function, mechanics, and results achieved by the menu.<br>Provides an overview of the existing and growing foodservice industry<br>as seen through the menu.   |    |
| CUA 2078 | Seminar  | 2  |
|          |  |    |



# **Dental Assisting**

## High School Instructor: Jennifer Skeels Fall & Spring Enrollment Prerequisite: N/A Campus: Warren Tech Central

## Plans of Study:

This course is a part of the Dental Assistant Certificate at Red Rocks Community College and may transfer to other colleges <a href="https://www.rrcc.edu/warrentech/dental-assisting">https://www.rrcc.edu/warrentech/dental-assisting</a>

(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  | 1       |
|          | Includes colloquial versus professional terminology, word elements and structure as they apply to dental terminology.   |         |
| DEA 1021 | Principles of Clinical Practice   | 3       |
|          | Includes techniques used in four handed dentistry, instrument identification, and armamentarium for tray set-ups. Covers sterilization and aseptic procedures.  |         |
| DEA 1022 | Specialties in Dentistry  | 2       |
|          | Focuses on armamentarium of specific tray set-ups for periodontics, endodontics,<br>and fixed and removable prosthodontics. Examines pediatric dentistry, oral<br>surgery, and implants. Includes diagnosis, treatment, and the dental assistant's<br>role in each specialty.                   |         |
| DEA 1011 | Intro to Dental Practice  | 1       |
|          | Includes roles and responsibilities of the dental health team; educational<br>background for the various specialties, including general practitioner, hygienist,<br>and dental assistant; history; legal implications; ethical responsibilities; and the<br>role of professional organizations. |         |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



| DEA 1012 | Dental Science I  | 3 |
|----------|---|---|
|          | Includes fundamentals of the oral structures as they apply oral histology,<br>embryology, morphology, pathology, dental anatomy, and dental charting.   |   |
| DEA 1013 | Dental Science II   | 3 |
|          | 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.                    |   |
| DEA 1023 | Dental Materials I  | 3 |
|          | Includes fundamentals of dental materials as they apply to clinical and laboratory applications.  |   |
| DEA 1024 | Dental Radiography  | 3 |
|          | Focuses on the science of radiography, the application of radiographic techniques, and aseptic techniques.  |   |
| DEA 1015 | Infection Control   | 3 |
|          | 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.           |   |
| DEA 1016 | Medical Emergencies in the Dental Office  | 2 |
|          | 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. |   |
| DEA 1031 | Prevention and Nutrition in Dentistry   | 3 |
|          | 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.           |   |
| DEA 2087 | Cooperative Education   | 2 |
|          | Meets the individual needs of students engaged in intensive cooperative education under the direction of a qualified instructor.  |   |



## Digital Audio Production High School Instructor: Ron Gordon Fall & Spring Enrollment Prerequisites: N/A Campus: Warren Tech South

**Plan of Study:** These courses can be applied as electives towards an Associate of Arts or Associate of General Studies degree. <u>https://www.rrcc.edu/degrees-certificates</u> or towards the <u>Music Audio Production Certificate</u>

| Course   | Description  | Credits |
|----------|--|---------|
| MUS 1000 | <b>Music Theory Fundamentals I:</b> Introduces the basics of music theory.<br>Course designed to help the beginning music student, or those students with<br>limited background in music theory, study the basic elements of music. Topics<br>include notation, rhythm, scales, key signatures, intervals, chords, beginning<br>level melodic and rhythm dictation, ear-training and sight singing skills. | 3       |
| MUS 1005 | <b>Intro Comp Music Applications:</b> Introduces the use of computers in the music industry. Explores current use of MIDI instrument, MIDI sequencing, MIDI editing, audio editing, notation software, and set-up of Digital Audio Workstation. No prerequisites.  | 3       |
| MUS 1061 | <b>Computer Music Applications I:</b> Introduces students to the Digital Audio<br>Workstation, current practices with MIDI instruments, MIDI sequencing, MIDI<br>editing, music notation programs.   | 3       |
| MUS 1063 | <b>Music Audio Production I:</b> Designed to give music majors and students with a strong interest in music a basic understanding of the Music Production process. This includes the basic knowledge of audio/music production, the fundamentals of sound and microphone, digital and analog technology, recording, and mixing.  | 3       |

# **Education and Leadership**

## High School Instructor: Christine McConnell Spring Enrollment Campus: Warren Tech Central

Prerequisite (any of the following scores or exemptions can be used): ACT: English 18 SAT: Verbal 470 Accuplacer Next Gen: Writing 246

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



**High School Class Exemption:** 3.0 un-weighted high school GPA and passed H.S. English 11 or 12 with a B or better in both semesters.

Self-Guided Assessment: English self-guided assessment

Corequisites: EDU 2211 and EDU 2088 must be taken together.

**Plan of Study:** Students who successfully complete these courses can apply the courses towards the Paraprofessional Educator Certificate <u>https://www.rrcc.edu/early-childhood-education/degrees-and-certificates</u>

| Course   | Description   | Credits |
|----------|---|---------|
| EDU 2211 | Introduction to Education<br>Focuses on the historical, social, political, philosophical, cultural, and<br>economic forces that shape the United States public school system. This<br>course includes current issues of education reform, technology as it relates<br>to education, and considerations related to becoming a teacher in the state<br>of Colorado. The course addresses diversity in the preschool through<br>secondary school system.   | 3       |
| EDU 2088 | Practicum II<br>Provides students with the opportunity to supplement coursework with<br>practical work experience related to their educational program. Students<br>work under the immediate supervision of experienced personnel at the<br>education facility and with the direct guidance of the instructor.  | 1       |
| EDU 2611 | <b>Teaching, Learning, &amp; Technology</b><br>Explores integration of technology instruction into teaching practices used in<br>preschool through postsecondary (P-21) educational settings for all<br>curriculum areas of content. This course reviews a variety of technologies<br>with an emphasis on increasing student learning and retention of<br>knowledge. The course also explores combining technology with several<br>instructional methodologies to promote professional teacher dispositions<br>related to technology-rich teaching. | 3       |

# **PROGRAM NOT RUNNING IN 2024-2025**

**Emergency Medical Services** 

**High School Instructor: Pending** 

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



# Spring Enrollment Campus: Warren Tech North

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.

| Introduces the Emergency Medical Technician (EMT) student to prehospital<br>emergency care. The topics included in this course are Emergency Medical<br>Services (EMS) systems, well-being of the EMT, communications,<br>documentation, anatomy, airway management, and patient assessment.4EMS 1022EMT Medical Emergencies<br>Provides the Emergency Medical Technician (EMT) student with the knowledge<br>and skills to effectively provide emergency care and transportation to a patient<br>experiencing a medical emergency. This course focuses on the integration of the<br>physical exam, medical history, and pathophysiology when assessing and<br>treating the medical patient.2EMS 1023EMT Trauma Emergencies<br>Provides the Emergency Medical Technician (EMT) student with the knowledge<br>and stills the effectively provide emergency. This course focuses on the integration of the<br>physical exam, medical history, and pathophysiology when assessing and<br>treating the medical patient.2 | oortinoution. |   |   |
|--|---------------|---|---|
| emergency care. The topics included in this course are Emergency Medical<br>Services (EMS) systems, well-being of the EMT, communications,<br>documentation, anatomy, airway management, and patient assessment.4EMS 1022EMT Medical Emergencies4Provides the Emergency Medical Technician (EMT) student with the knowledge<br>and skills to effectively provide emergency care and transportation to a patient<br>experiencing a medical emergency. This course focuses on the integration of the<br>physical exam, medical history, and pathophysiology when assessing and<br>treating the medical patient.2EMS 1023EMT Trauma Emergencies<br>Provides the Emergency Medical Technician (EMT) student with the knowledge2  | EMS 1021      |   | 3 |
| Provides the Emergency Medical Technician (EMT) student with the knowledge<br>and skills to effectively provide emergency care and transportation to a patient<br>experiencing a medical emergency. This course focuses on the integration of the<br>physical exam, medical history, and pathophysiology when assessing and<br>treating the medical patient.2EMS 1023EMT Trauma Emergencies<br>Provides the Emergency Medical Technician (EMT) student with the knowledge  |               | emergency care. The topics included in this course are Emergency Medical<br>Services (EMS) systems, well-being of the EMT, communications,  |   |
| and skills to effectively provide emergency care and transportation to a patient<br>experiencing a medical emergency. This course focuses on the integration of the<br>physical exam, medical history, and pathophysiology when assessing and<br>treating the medical patient.2EMS 1023EMT Trauma Emergencies<br>  | EMS 1022      | EMT Medical Emergencies   | 4 |
| Provides the Emergency Medical Technician (EMT) student with the knowledge   |               | and skills to effectively provide emergency care and transportation to a patient<br>experiencing a medical emergency. This course focuses on the integration of the<br>physical exam, medical history, and pathophysiology when assessing and |   |
|  | EMS 1023      | EMT Trauma Emergencies  | 2 |
| and skills to provide appropriate emergency care and transportation of a patient<br>who has suffered a traumatic injury. The concepts of kinematics and the<br>biomechanics of trauma, along with pathophysiology and injury patterns will<br>provide the student with the ability to assess and manage the trauma patient.  |               | and skills to provide appropriate emergency care and transportation of a patient<br>who has suffered a traumatic injury. The concepts of kinematics and the<br>biomechanics of trauma, along with pathophysiology and injury patterns will    |   |
| EMS 1024EMT Special Considerations2  | EMS 1024      | EMT Special Considerations  | 2 |
| Provides the Emergency Medical Technician (EMT) student with the knowledge<br>and skills required to modify the assessment, treatment, and transportation of<br>special patient populations and patients in special circumstances. This course<br>also provides an overview of incident command, mass casualty incidents, vehicle<br>extrication, air medical support, hazardous materials, and terrorism.   |               | 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 |   |
| EMS 1070 Emergency Medical Technician-Basic Clinical 1   | EMS 1070      | Emergency Medical Technician-Basic Clinical   | 1 |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



Provides the EMT student with the clinical experience required.

|   | Fire Science/First Responder   |                                    |
|---|--|------------------------------------|
|   | High School Instructor: Matt Beckett<br>Fall & Spring Enrollment<br>Campus: Warren Tech Central  |                                    |
| Prerequisit<br>ACT: Englis<br>SAT: Verbal   |  |                                    |
| <b>High Schoo</b><br>2 with a B             | r <b>Next Gen:</b> Writing 246<br>I <b>l Class Exemption:</b> 3.0 un-weighted high school GPA and passed H.S.<br>or better in both semesters.<br>I <b>d Assessment:</b> English self-guided assessment   | English 11 c                       |
| Associa                                     | ork completed with a grade of C or better may be applied towards the F te of Applied Science Degree or certificate. This program of study is dear provide a program of study is dear provide a provide study in the fire contribution.   | signed for                         |
| These course                                | new to or preparing for the fire service. Students must earn a C or high<br>science and general education courses to graduate.<br><b>Plans of Study:</b><br>es are part of the Fire Science Technology Associate of Applied Science Deg<br>nunity College and may transfer to other colleges <u>https://www.rrcc.edu/fire</u>  | ree at Red                         |
| These course                                | science and general education courses to graduate.<br><b>Plans of Study:</b><br>es are part of the Fire Science Technology Associate of Applied Science Deg  | ree at Red                         |
| These course<br>Rocks Comm                  | science and general education courses to graduate.<br>Plans of Study:<br>es are part of the Fire Science Technology Associate of Applied Science Degounity College and may transfer to other colleges https://www.rrcc.edu/fire<br>Description<br>Principles of Emergency Services<br>Provides an overview to fire protection; career opportunities in fire protection<br>and related fields; philosophy and history of fire protection/service; fire loss<br>analysis; organization and function of public and private fire protection<br>services; fire departments as part of local government ; laws and regulations<br>affecting the fire service; fire service nomenclature ; specific fire protection<br>functions; basic fire chemistry and physics; introduction to fire protection | ree at Red<br>e-science            |
| These course<br>Rocks Comm<br><b>Course</b> | science and general education courses to graduate.<br>Plans of Study:<br>es are part of the Fire Science Technology Associate of Applied Science Deg<br>nunity College and may transfer to other colleges <u>https://www.rrcc.edu/fire</u><br>Description<br>Principles of Emergency Services<br>Provides an overview to fire protection; career opportunities in fire protection<br>and related fields; philosophy and history of fire protection/service; fire loss<br>analysis; organization and function of public and private fire protection<br>services; fire departments as part of local government ; laws and regulations<br>affecting the fire service; fire service nomenclature ; specific fire protection  | ree at Red<br>a-science<br>Credits |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



|          | pertain to how the tools will be used in the CPAT or other related entry level fitness test.   |   |
|----------|--|---|
| FST 1010 | Job Placement and Assessment   | 3 |
|          | Addresses all aspects of the Fire Service entrance examination process and<br>especially emphasizes various components of the exam, including the written,<br>physical abilities, and oral interview. The objective of this class is to help<br>increase the entrance firefighter candidate's chance of obtaining a career in the<br>Fire Service. |   |
| EMS 1015 | Emergency Medical Responder  | 3 |
|          | 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.   |   |

# Forensic Science Program

This program offers college credit for guaranteed transfer courses that can be applied towards Associate of Art degree requirements.

# High School Instructor: Afton Nance Spring Enrollment

## Campus: Warren Tech North

Prerequisites (any of the following sets of scores or exemptions can be used):

ACT Scores: English: 18 and Math 19

SAT Scores: Verbal 470 and Math 500

Accuplacer Next Gen: Writing 246 and Quantitative Algebra/Statics 240

High School Class Exemption: 3.0 un-weighted high school GPA and passed H.S. English 11

or 12 with a B or better in both semesters AND Algebra II, Geometry, Trig., Pre-Calc., or

Calculus with a grade of B or better in both semester and 3.0 un-weighted GPA.

Self-Guided Assessment: English self-guided assessment and Liberal Arts Math self-guided assessment

## Plan of Study:

GT - These classes are guaranteed transfer courses under the State GT Pathways program. https://rrcc.smartcatalogiq.com/current/catalog/guarantee-transfer-courses/gt-coursesguarantee-transfer/

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



| Course   | Description   | Credits |
|----------|---|---------|
| BIO 1004 | Biology: A Human Approach   | 4       |
|          | Develops a basic knowledge of the structure and function of the<br>human body by studying the body`s structure as a series of<br>interrelated systems. Includes cardiovascular, respiratory, digestive,<br>lymphatic, musculoskeletal, nervous, endocrine, reproductive and<br>urinary systems, and genetics. Emphasizes disease prevention and<br>wellness. This course includes laboratory experience. This is a<br>statewide Guaranteed Transfer course in the GT-SC1 category |         |
| BIO 1111 | General College Biology w/Lab   | 5       |
|          | Examines the fundamental molecular, cellular and genetic principles<br>characterizing plants and animals. Includes cell structure and<br>function, and the metabolic processes of respiration, and<br>photosynthesis, as well as cell reproduction and basic concepts of<br>heredity. The course includes laboratory experience. This is a<br>statewide Guaranteed Transfer course in the GT-SC1 category.  |         |
| CRJ 2031 | Intro Forensic Sci/Criminalist  | 3       |
|          | Exploration of the fundamentals of forensic science that are essential for gathering evidence at the crime scene and analyzing it in the crime laboratory.  |         |

# **Graphic Design**

## High School Instructor: Peter Cunis & Scot Odendahl Fall & Spring Enrollment Prerequisites: N/A Campus: Warren Tech Central

## 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 <u>https://www.rrcc.edu/multimedia</u>

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



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  | 3       |
|          | Concentrates on the high-end capabilities of Adobe Photoshop as an<br>illustration, design and photo retouching tool. Students explore a wide range of<br>selection and manipulation techniques that can be applied to photos, graphics<br>and videos. Course competencies and outline follow those set out by the Adobe<br>Certified Associate exam in Visual Communication Using Adobe Photoshop.          |         |
| MGD 1012 | Adobe Illustrator I  | 3       |
|          | Concentrates on the high-end capabilities of Adobe Illustrator as an illustration,<br>design and vector drawing tool. Students learn how to use the tools to create<br>digital artwork that can be used in web design, print media, and digital screen<br>design. Course competencies and outline follow those set by the Adobe<br>certified Associate exam in Visual Communication using Adobe Illustrator. |         |
| MGD 1013 | Adobe InDesign   | 3       |
|          | Introduces students to InDesign, a page layout program which integrates<br>seamlessly with other Adobe design programs. InDesign delivers creative<br>freedom and productivity to DTP. Class discussions and independent projects<br>supplement hands-on classroom work.   |         |
| MGD 1014 | Typography   | 3       |
|          | Introduces the history and concepts of typography as applied to graphic<br>communications. Explores appropriate use of typography in a variety of design<br>applications, emphasizing the basic design principles of typographic<br>compositions and typesetting. Covers type recognition and typographic terms.   |         |

## Live Sound Live Sound High School Instructor: Drake Watkins Fall & Spring Enrollment Prerequisites: N/A

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



#### **Campus: Warren Tech South**

**Plan of Study:** These courses can be applied as electives towards an Associate of Arts or Associate of General Studies degree. <u>https://www.rrcc.edu/degrees-certificates</u> or towards the <u>Music Audio Production Certificate</u>

| Course   | Description   | Credits |
|----------|---|---------|
| MUS 1008 | <b>Principles of Acoustics:</b> Provides students with simplified acoustic and psychoacoustic concepts to promote an intuitive understanding of sound, its relation to and interaction with physical environments, and the role of sensory perception in shaping the way humans hear.                                     | 3       |
| MUS 2065 | <b>Live Audio Engineering:</b> Teaches the concepts and technical skills of live sound reinforcement. Topics include basic audio concepts, the operation and interconnection of a sound system, signal processing, and live sound recording. Students will participate in special class projects and live sound sessions. | 3       |

## **Medical Assisting**

This program prepares the student for entry level in Healthcare. College credit earned can be applied towards the Health Science degree and certificate programs.

#### High School Instructor: Kasie Krug Fall & Spring Enrollment

#### Campus: Warren Tech North

 Prerequisite (any of the following scores or exemptions can be used):

 ACT: English 18

 SAT: Verbal 470

 Accuplacer Next Gen: Writing 246

 High School Class Exemption: 3.0 un-weighted high school GPA and passed H.S. English 11 or 12 with a B or better in both semesters.

 Self-Guided Assessment: English self-guided assessment

 Plan of Study: Courses are part of the Medical Assisting/Office Associate of Applied Science Degree at Red Rocks Community College and may transfer to other colleges. <a href="https://www.rrcc.edu/medical-assisting">https://www.rrcc.edu/medical-assisting</a>

 Course
 Description

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



| HPR 1040 | Comprehensive Medical Terminology  | 3 |
|----------|--|---|
|          | Provides an in-depth study of the structure of medical terms with<br>emphasis on using and combining common prefixes, roots and<br>suffixes. This course includes terms related to major body systems,<br>oncology, and psychiatry as well as clinical laboratory and diagnostic<br>procedures, and imaging, and provides accepted pronunciation of<br>terms and relative use in the healthcare setting.<br><b>No Prerequisite</b> |   |
| MAP 1010 | Medical Office Administration<br>Teaches students the administrative and financial skills used in<br>healthcare facilities. This includes professionalism, communication<br>skills, compliance, accounting principles, and codes used in<br>diagnosis, insurance billing, and third-party reimbursement<br>procedures.   | 4 |
| MOT 1081 | <b>90-Hour Internship</b><br>Provides supervised placement in a contracted facility for guided<br>administrative experience in the psychomotor, cognitive, and<br>affective learning acquired in an educational program. Positions are<br>non-paid and must meet 90 hours minimum.   | 2 |

#### Nurse Aide Certificate

#### High School Instructors: Wendy Dorrance Fall Enrollment Campus: Warren Tech North

Prerequisite: any of the following scores or exemptions: ACT Scores: English 18 SAT Scores: Verbal 470 Accuplacer Next Gen: Writing 246 High School Class Exemption: 3.0 un-weighted high school GPA and passed H.S. English 11 or 12 with a B or better in both semesters.

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



Self-Guided Assessment: English self-guided assessment

**Plan of Study:** Students who complete both courses successfully will be eligible to receive the Nurse Aide Certificate. <u>https://www.rrcc.edu/nurse-aide/certificates</u>.

The Colorado State Board of Nursing approves this program and successful graduates are eligible to take the state certification exam.

| Course   | Description  | Credits |
|----------|--|---------|
| NUA 1001 | Nurse Aide Health Care Skills  | 4       |
|          | Prepares the student to perform the fundamental skills of the nurse<br>aide. Basic nursing skills, communication skills, restorative services,<br>personal care skills, safety and emergency care issues are covered.<br>Includes knowledge and/or principles of asepsis, OSHA and HIPPA<br>regulations. Ethical behaviors, cultural sensitivity and principles of<br>mental health will be addressed, as well as patient/resident rights. |         |
| NUA 1070 | Nurse Aide Clinical Experience   | 1       |
|          | Applies knowledge and skill gained in NUA 1001 to patient care.  |         |
|          | Corequisite: NUA101.   |         |

## **Outdoor Leadership**

#### High School Instructor: Peter Nelson and Ashley Anderson 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 <u>https://www.rrcc.edu/outdoor-education</u>

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

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



| Education Certificate or can apply the credits earned towards an Associate of Applied Science<br>Degree in Outdoor Education. |  |         |  |
|---|--|---------|--|
| Successfu   | <b>Earn a RRCC Certificate:</b><br>Successful completion of all courses (excluding OUT 1205) earns an <i>Introduction to Outdoor</i><br><i>Education Certificate</i> .   |         |  |
| Course  | Description  | Credits |  |
| OUT 2043  | Wilderness First Aid   | 1       |  |
|   | Provides limited medical information to cope with basic wilderness emergencies.  |         |  |
| PRA 2018  | Outdoor Leadership   | 3       |  |
|   | Enables the student to develop, acquire and apply outdoor leadership skills and<br>knowledge. Exposes students to the latest information, philosophy, and<br>techniques necessary to safely conduct outdoor programs and expeditions as<br>an outdoor leader. Skills are applied under actual field conditions. Emphasizes<br>minimum impact camping, wilderness ecology, judgment, decision making,<br>group dynamics, and trip logistics. These skills enhance the effectiveness of the<br>student as a professional outdoor leader. |         |  |
| OUT 1200  | Wilderness Ethics  | 2       |  |
|   | Emphasizes the motivation, aesthetics, and ethics of wilderness. Viewpoints to be examined include Native American, Western, historic, and those of modern environmental writers.  |         |  |
| OUT 1120  | Backpacking  | 2       |  |
|   | Provides skills related to wilderness travel and outdoor adventure. This course<br>will emphasize knowledge of backpacking skills, survival techniques, proper<br>physical conditioning, route finding, equipment selection, and will encourage<br>an understanding and respect for the environment. The course will involve<br>lecture and discussion sessions followed by a weekend trip in the mountains.   |         |  |
| OUT 1050  | Backcountry Cooking  | 1       |  |
|   | Focuses on menu planning, nutritional requirements for wilderness camping,<br>and meal preparations. Includes cooking a backcountry meal.  |         |  |
| OUT 1030  | Orienteering and Route Finding   | 2       |  |
|   | Combines the topics of using different topographical maps and compasses in<br>order to safely plan a route in the wilderness with orienteering (organized<br>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.   |   |
|----------|---|---|
| OUT 1010 | Wilderness Survival Skills  | 3 |
|          | This course emphasizes the physiological, psychological and practical principles of survival. Survival equipment, wilderness improvising techniques, and wilderness dangers are included.   |   |
| OUT 1510 | Rock Climbing I   | 2 |
|          | Introduces basic rock climbing, improving dexterity, problem solving skills and<br>the physical work capacity of an individual. Enables the student to gain an<br>understanding of the general principles of climbing; how equipment works and<br>how it is used; basic climbing skills and techniques; safety and climbing<br>etiquette and terminology.   |   |
| OUT 1205 | Leave No Trace Trainer Certification  | 2 |
|          | Introduces the student to the principles of Leave No Trace and prepares<br>students to teach Leave No Trace curriculum in a variety of outdoor and urban<br>settings. This class is a must for guides, outfitters, outdoor educators, agency<br>employees, scout/youth group leaders, or anyone who cares about minimizing<br>impact on the Colorado backcountry.   |   |
| OUT 1540 | Challenge Course Facilitation   | 2 |
|          | Provides approaches to challenge course management including construction<br>and maintenance of high and low elements, facilitation and group dynamics,<br>risk management and safety, and challenge course philosophies.   |   |
| OUT 1530 | Technical Canyoneering  | 2 |
|          | 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. |   |
| OUT 1520 | Ice Climbing I  | 1 |
|          | Introduces technical (roped) ice climbing, including equipment selection and safety, knots, belaying and climbing, rappelling and climbing safety.  |   |
| OUT 2044 | Wilderness First Responder  | 4 |



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



#### Physical Therapy High School Instructor: Christine Wetzig Spring Enrollment Prerequisites: N/A Campus: Warren Tech South

**Plan of Study:** This course may count towards several certificates and degrees in the <u>Health</u> <u>Science</u> Programs at Red Rocks Community College and may transfer to other colleges.

| Course   | Description   | Credits |
|----------|---|---------|
| HPR 1040 | <b>Comprehensive Medical Terminology:</b> Provides an in-depth study of the structure of medical terms with emphasis on using and combining common prefixes, roots and suffixes. This course includes terms related to major body systems, oncology, and psychiatry as well as clinical laboratory and diagnostic procedures, and imaging, and provides accepted pronunciation of terms and relative use in the healthcare setting. | 3       |

# **Precision Machining**

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

#### **Campus: Warren Tech Central**

#### 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 <u>http://www.rrcc.edu/precision-</u> 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.

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



| Course   | Description   | Credits |
|----------|---|---------|
| MAC 1010 | Intro to Engine Lathe   | 3       |
|          | 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 required to produce specified parts to a tolerance of +/004 in. and perform competencies set by manufacturing standards. |         |
| MAC 1011 | Intermediate Engine Lathe   | 3       |
|          | Teaches students to prepare single point external and internal unified screw<br>threads to a Class 3 fit, generate angles with the compound rest within one<br>degree, ream holes concentric within .001 inches, determine cutting speeds,<br>and perform facing and turning operations.  |         |
| MAC 1020 | Introduction to Milling Machine   | 3       |
|          | Teaches students to identify the major parts of the vertical mill, align a vise, use<br>an indicator, edge finder, and boring head, determine speeds and feeds perform<br>simple indexing, mill flat, square surfaces and slots, drill, bore, and tap holes,<br>and work within a plus or minus .002 inch tolerance.  |         |
| MAC 1021 | Intermediate Milling Machine  | 3       |
|          | Prepares students to determine hole locations by coordinates and degrees, use<br>a rotary table, use a jig bore to drill holes by the coordinate method, and work<br>within plus or minus .001 inch tolerance.  |         |
| MAC 2001 | Intro to CNC Turning Operations   | 3       |
|          | 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.  |         |
| MAC 2005 | Intro to CNC Milling Operations   | 3       |
|          | 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.  |         |
| MAC 2050 | Advanced Inspection Techniques  | 3       |
|          | Exposes the student to the principles of dimensional metrology. Students will<br>learn how to use common measuring instruments relating to state-of-the-art<br>manufacturing environments. Students will also learn the importance of Quality   |         |



|          |   | 1 |
|----------|---|---|
|          | Control, TQM, and SPC processes as they relate to manufacturing environments. Use of a coordinate measuring machine will be delivered.  |   |
| MAC 2053 | Wire EMD Operation  | 3 |
|          | Covers the preparation, operation, and maintenance the Computer Numerical<br>Controlled wire Electric Discharge Machine (the CNC wire EDM machine).   |   |
| MAC 2057 | Wire EMD Programming  | 3 |
|          | Covers how to create a G language program (G-code) for a Computer Numerical<br>Controlled wire Electrical Discharge Machine (CNC wire EDM Machine) using<br>Computer-aided Design and Computer-aided Manufacturing (CAD/CAM)<br>software.   |   |
| MAC 2010 | Intro to Swiss Turn Operations  | 3 |
|          | Introduces the theory behind Swiss turn machine operations. Students will<br>learn about the parts of the machine, general maintenance, and machine setup.<br>Students will learn how to operate a dual spindle Swiss turn machine.   |   |
| MAC 2011 | Swiss Turn Programming I  | 3 |
|          | Expands on operational techniques presented in Introduction to Swiss Turn<br>Operations. Students will design for and program a single spindle machine with<br>live tooling. Students will expand their skills using a Swiss turn machine by<br>learning proper tool selection, feed and speed calculation, turning<br>programming basics, milling programming basics, and variable manipulation. |   |
| MAC 2061 | 5 Axis Mill Programming   | 3 |
|          | Covers how to create a 5-axis milling machine program using Computer-aided Design and Computer-aided Manufacturing (CAD/CAM) software.  |   |
| MAC 2060 | 5 Axis Mill Operation   | 3 |
|          | Covers preparation, operation and maintenance of the 5-axis milling machine.  |   |
| MAC 2002 | CNC Turning Operations II   | 3 |
|          | 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.  |   |
| MAC 2006 | CNC Milling Operations II   | 3 |
|          | 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.   |   |



| EGT 2305 | Geometric Dimensioning and Tolerance  | 3 |
|----------|---|---|
|          | 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. |   |

#### Sports Medicine

## High School Instructor: Leslie Tufano Spring Enrollment

#### Campus: Warren Tech North

**Prerequisite for HWE 255 (any of the following scores or exemptions can be used): ACT:** English 18

SAT: Verbal 470

Accuplacer Next Gen: Writing 246

**High School Class Exemption:** 3.0 un-weighted high school GPA and passed H.S. English 11 or 12 with a B or better in both semesters.

Self-Guided Assessment: English self-guided assessment

**Plan of Study:** Students who complete the courses successfully will have the opportunity to become trainers.

| Course   | Description   | Credits |
|----------|---|---------|
| HWE 1061 | Fitness and Wellness  | 2       |
|          | Provides information on fitness and wellness and to serve as a guide  |         |
|          | to design, implement, and evaluate a complete personal fitness and  |         |
|          | wellness program. The course integrates the basic components of   |         |
|          | fitness and wellness in understanding human health in order to  |         |
|          | achieve well-being. This course offers current information in the heath   |         |
|          | field and provides self-assessments for health risk and well ness   |         |
|          | behaviors. This includes lifestyle modification, nutrition, weight  |         |
|          | management, stress management, cardiovascular and cancer risk reduction, exercise and aging, exercise related injury exercise and the |         |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



|          | environment, prevention of sexually transmitted diseases, substance<br>abuse (including tobacco, alcohol and other psychoactive drugs), and<br>analysis and interpretation of research publications and websites in<br>health and wellness.<br><b>No prerequisite for this course.</b>  |   |
|----------|---|---|
| HWE 1050 | Human Nutrition<br>Introduces basic principles of nutrition with emphasis on personal<br>nutrition. This course focuses on macro and micro nutrients and their<br>effects on the functions of the human body. Special emphasis is placed<br>on the application of wellness, disease, and lifespan as it pertains to<br>nutrition.   | 3 |
| HWE 1068 | <b>Certified Personal Trainer Prep Course</b><br>Provide the student with theoretical knowledge and practical skills in<br>preparation for a nationally recognized personal training certification<br>approved by the Colorado Community College System. These<br>Certifications are limited to the following: ACSM, ACE, NSCA, NCSF,<br>AFAA, and AEA. Upon certification, the student will have the ability to<br>develop and implement exercise programs for healthy populations<br>and/or those individuals with medical clearance to exercise. | 3 |

#### TV/Video Production High School Instructor: Jon White Spring Enrollment Prerequisites: N/A Campus: Warren Tech South

**Plans of Study:** These courses are part of the <u>Videography Associate of Applied Science Degrees</u> or the <u>Intro to Videography Certificate</u> at Red Rocks Community College and may transfer to other colleges.

| Course   | Description   | Credits |
|----------|---|---------|
| MGD 1004 | <b>Videography:</b> Offers an introduction to the principles and techniques of videotape production, including camera operation, basic script writing, lighting, sound and basic digital editing. Detailed examination of the pre-production, production, and post-production processes, as well as aesthetics, will be included. | 3       |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



| MGD 1064 | <b>Digital Video Editing I:</b> Introduces to digital non-linear video editing. Students 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. | 3 |
|----------|---|---|
| MGD 1065 | <b>After Effects I:</b> Provides the fundamental techniques for creating digital motion graphics such as 2D animations, animated logos, video graphics, etc. Classes cover relevant tools and techniques as well as industry standards, delivery methods and output.  | 3 |

## Welding

## High School Instructor: Tom Kienbaum Fall and Spring Enrollment Prerequisite: N/A Campus: Warren Tech Central

#### 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.<u>https://www.rrcc.edu/warrentech/welding</u>

(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  | 1       |
|          | 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. |         |
| WEL 1001 | Allied Cutting Process  | 4       |
|          |   |         |

\*Students are encouraged to connect with their preferred college/university advisor to determine transferability of college credit.



|          | Covers setting up equipment and performing cutting and gouging operations<br>utilizing the oxyacetylene, air carbon arc, and plasma arc cutting processes.<br>This course will also provide an introduction to blueprint reading.  |   |
|----------|--|---|
| WEL 1002 | Oxyacetylene Joining Processes   | 4 |
|          | Introduces safety inspections, minor repairs, operating parameters,<br>oxyacetylene welding equipment, and oxyacetylene welding, brazing, and<br>soldering operations. Blueprint reading skills will be practiced in this course.  |   |
| WEL 1003 | Basic Shielded Metal Arc Welding I   | 4 |
|          | 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.   |   |
| WEL 1010 | Advanced Shielded Metal Arc Welding I  | 4 |
|          | 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.  |   |
| WEL 1024 | Intro to Gas Tungsten Arc Welding  | 4 |
|          | 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. |   |
| WEL 2001 | Gas Metal Arc Welding I  | 4 |
|          | Covers safety inspections, minor repairs, operating parameters, operation of<br>GMAW equipment on plain carbon steel utilizing short circuit and spray<br>transfer, and fundamental metallurgy principles.   |   |
| WEL 2002 | Gas Metal Arc Welding II   | 4 |
|          | Covers safety inspections, minor repairs, operating parameters, operation of<br>GMAW equipment utilizing a variety of electrodes and base metals, and<br>fundamental principles of welding metallurgy to welding, fabrication, and<br>inspection.  |   |
| WEL 2003 | Flux Cored Arc Welding I   | 4 |
|          | 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.   |   |



| WEL 2004 | Flux Cored Arc Welding II  | 4 |
|----------|--|---|
|          | 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.   |   |
| WEL 2024 | Advanced Gas Tungsten Arc Welding II   | 4 |
|          | Covers welding in all positions on carbon steel, stainless steel and aluminum<br>plate and carbon steel pipe with the GTAW process. Student should be familiar<br>with basic metallurgy pertaining to the weldability of metals, structural joints,<br>and safety in the welding industry. |   |
| WEL 2050 | Layout and Fabrication   | 4 |
|          | Develops welding and associated skills in the use of drawings and blueprints in planning. Includes designing and layout projects.  |   |