

## 2021-2022 CTE Pathways Program Course Schedule

*Course offerings subject to change based on enrollment and availability*

### Fall 2021: September 27<sup>th</sup> – December 10<sup>th</sup>

Class	Days Offered	Time Offered	Tuition/Fees Cost Per Student*	Materials/Supplies Cost Per Student*
AM-101: Intro to Auto. Services Technology	M/W	7:30-8:40am	\$339.00	TBD
AM-101: Intro to Auto. Services Technology	T/TH	7:30-8:40am	\$339.00	TBD
AM-101: Intro to Auto. Services Technology	T/TH	3:30-4:40pm	\$339.00	TBD
AM-118: Small Engine Repair	M/T/W/TH	7:30-9:10am	\$500.50	\$0
AM-118: Small Engine Repair	M/T/W/TH	3:30-5:10pm	\$500.50	\$0
MFG-102: Makerspace	M/W	3:30-5:00pm	\$200.50	TBD
MFG-200: Intro to CNC	T/TH	3:30-5:00pm	\$200.50	TBD
MUS-107: Intro to Audio Recording	TH	3:30-6:30pm	\$499.50	\$64.95
WLD-111A/B: Shielded Metal Arc Welding	M/T/W/TH	7:30-9:30am	\$768.00	Up to \$588
WLD-111A/B: Shielded Metal Arc Welding	M/T/W/TH	3:30-5:30pm	\$768.00	Up to \$588

### Winter 2022: January 3<sup>rd</sup> – March 18<sup>th</sup>

Class	Days Offered	Time Offered	Tuition/Fees Cost Per Student*	Materials/Supplies Cost Per Student*
AM-101: Intro to Auto. Services Technology	M/W	7:30-8:40am	\$339.00	TBD
AM-118: Small Engine Repair	M/T/W/TH	7:30-9:10am	\$500.50	\$0
AM-118: Small Engine Repair	M/T/W/TH	3:30-5:10pm	\$500.50	\$0
AM-129: Electrical Systems I CANCELLED	M/T/W/TH/F	7:30-9:30am	\$822.50	TBD
AM-129: Electrical Systems I	M/T/W/TH/F	3:30-5:30pm	\$822.50	TBD
AB-113: Collision Repair/Refinishing I-III	M/T/W/TH/F	1:15-3:45pm	\$1,072.00	\$0
MFG-102: Makerspace	M/W	3:30-5:00pm	\$200.50	TBD
WLD-113A: Gas Metal/Flux Core Arc Welding	M/T/W/TH	7:30-9:30am	\$768.00	Up to \$588
WLD-113A: Gas Metal/Flux Core Arc Welding	M/T/W/TH	1:15-3:15pm	\$768.00	Up to \$588
WLD-113A: Gas Metal/Flux Core Arc Welding	M/T/W/TH	3:30-5:30pm	\$768.00	Up to \$588

**Spring 2022: March 28<sup>th</sup> – June 11<sup>th</sup>**

<b>Class</b>	<b>Days Offered</b>	<b>Time Offered</b>	<b>Tuition/Fees Cost Per Student*</b>	<b>Materials/Supplies Cost Per Student*</b>
AM-101: Intro to Auto. Services Technology	M/W	7:30-8:40am	\$339.00	TBD
AM-118: Small Engine Repair	M/T/W/TH	7:30-9:10am	\$500.50	\$0
AM-118: Small Engine Repair	M/T/W/TH	3:30-5:10pm	\$500.50	\$0
MFG-102: Makerspace	M/W	3:30-5:00pm	\$168.00**	TBD
MUS-142: Intro to Electronic Music I: MIDI	M	6:30-9:20pm	\$465.00	TBD
MUS-247: Sound for Media	W	3:00-5:50pm	\$465.00	TBD
WLD-115A/B: Gas Tungsten Arc Welding	M/T/W/TH	7:30-9:30am	\$768.00	Up to \$588
WLD-115A/B: Gas Tungsten Arc Welding	M/T/W/TH	1:15-3:15pm	\$768.00	Up to \$588
WLD-115A/B: Gas Tungsten Arc Welding	M/T/W/TH	3:30-5:30pm	\$768.00	Up to \$588

*\*additional per student costs may apply for textbooks and supplies*

## 2021-22 CTEP Course Descriptions

### Automotive

#### **AM-101: Intro to Automotive Service Technology (2 credits)**

This course will prepare students for success in the Automotive Service Technology Program. Shop orientation and automotive industry safety training will be provided. Students can earn industry-recognized certificates. Students will be exposed to industry-recognized online service information. Students will also be introduced to tasks that align with the Auto Service Excellence Education Foundation (ASEEF) Master Automotive Service Technician (MAST) program accreditation.

#### **AM-118: Small Engine Repair (3 credits)**

This course is designed to provide an overview of basic small engine maintenance, operation and repair. It covers safety, small engine theory, electrical systems and troubleshooting. Classroom instruction covering theory of operation, 2 cycle and 4 cycle designs and applications combined with hands-on live projects provides the student the opportunity to learn basic principles of small engine operation, including outdoor equipment, motorcycles and ATVs.

#### **AM-129: Electrical Systems I (5 credits)**

This course is designed to provide students with the entry-level skills necessary to repair automobile electrical systems. Students will learn about general electrical systems diagnosis; servicing and repair of batteries, starting systems, and charging systems. Prerequisite: Pass AM-101.

#### **AM-130: Brake Systems (5 credits)**

In this theory and lab course students will learn about the construction and operation of basic hydraulics, brake fluids, friction materials, seals, disc and drum brakes, hydraulic and vacuum brake booster systems. Students will also learn to service and repair automotive brake systems.

Prerequisite: Pass AM-101 and AM-129.

### Auto Body / Collision Repair

#### **AB-113: Collision Repair I (6 credits)**

Basic instruction in collision repair, including shop and chemical hazard safety; proper and safe use of tools; basic metal work/refinishing; use of filler; door removal, replacement and alignment; and bolt on front end sheet metal parts.

#### **ABR-125: Collision Repair/Refinishing I (6 credits)**

Shop safety, fire prevention, selection and use of paint products, abrasives, fillers, application of primers, sealers and top coats. Prerequisite: Pass AB-113 Collision Repair I.

#### **AB-133: Collision Repair II (6 credits)**

Repair major body damage using modern frame repair equipment and bolt-on, bonded, and welded components using latest technology. Introduction to computerized measuring and damage analysis. Prerequisite: Pass ABR-125 Collision Repair/Refinishing I.

#### **ABR-127: Collision Repair/Refinishing II (6 credits)**

Application of solvent and waterborne finishes, spot repairs, color matching and complete refinishing. Intro. To computerized color information retrieval and mixing. Prerequisite: Pass AB-133 Collision Repair II.

**AB-222: Collision Repair III (6 credits)**

Major collision repair with systems approach frame/structure, panels, suspension and brakes, electrical and cooling systems. Emphasis on frame and unibody repair, replacing welded body panels and diagnosis/repair of related damage. Prerequisite: Pass ABR-127 Collision Repair/Refinishing II.

**ABR-129: Collision Repair/Refinishing III (6 credits)**

Application of solvent and waterborne basecoats, tri-coats and urethane topcoats using foreign and domestic refinish systems. Compete refinishing, spot and panel painting, color matching. Prerequisite: Pass AB-222 Collision Repair III.

## **Manufacturing**

**MFG-102: Makerspace: An Introduction to Digital Manufacturing (1 credit or 3 credits)**

Introduces students to aspects of digital design and manufacturing through use of sophisticated modeling software; 3-D printing, laser cutting and scanning; and CNC machining. Students complete a series of hands-on projects that require imagination and determination while learning solid workmanship principles.

**MFG-200: Introduction to CNC (1 credit)**

Course will prepare students to be entry-level Computer Numerical Control (CNC) machine operators. Covers fundamentals of operation, setup principals and G&M code programming. Students use hands on activities in industrial milling and turning centers. Recommended for students with limited knowledge of CNC machining.

## Music Technology

### **MUS-107: Introduction to Audio Recording I (3 credits)**

Introduction to the basic techniques and tools used in audio recording. Areas of study include signal path, microphone applications, software, hardware, outboard gear, tracking, mixing, and editing.

### **MUS-131: Group Piano: Piano for Pleasure (1 credit)**

Beginning classroom piano instruction for non-music majors. Includes reading, theory, technical exercises, and the opportunity to share your music with others. Beginning to intermediate level.

### **MUS-142: Introduction to Electronic Music I: MIDI (3 credits)**

Introduction to synthesis, MIDI sequencing, basic musical elements, and the basics of production. Learn how to make beats, songs, etc. Uses common production software/hardware.

### **MUS-247: Sound for Media (3 credits)**

Introduction to sound as related to film making, animation, and video games. Students will have the opportunity to create and assemble sound for media into a finished product. Explores the basic components of commercial film/video, animation, and game production as they relate to sound. Recommended: Experience using a **DAW (Digital Audio Workstation)** or video editing software.

## Welding

### **WLD-111A: Shielded Metal Arc Welding (Stick) A (4 credits)**

Part one of WLD-111 which provides opportunity acquire knowledge and skills to set up and operate equipment to perform fillet and groove welds in flat and horizontal positions with the SMAW process. Oxy-fuel cutting, air carbon arc cutting and gouging will be covered.

### **WLD-111B: Shielded Metal Arc Welding (Stick) B (4 credits)**

The second half of WLD-111 which provides the opportunity to acquire knowledge and skills to perform more advanced fillet and groove welds in vertical and overhead positions with the SMAW process. Welding codes, standards and specifications will be reviewed. Prerequisite: Pass WLD-111A.

### **WLD-113A: Gas Metal Arc Welding/Flux Core Arc Welding (Wirefeed) A (4 credits)**

First half of WLD-113 which provides the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet welds in flat and horizontal positions with the Gas Metal Arc and Flux Core Arc Welding processes. Oxy-fuel cutting, air carbon arc cutting and gouging will be covered.

### **WLD-113B: Gas Metal Arc Welding/Flux Core Arc Welding (Wirefeed) B (4 credits)**

The second half of WLD-113 which provides additional knowledge and skills needed to perform more advanced fillet and groove welds in vertical and overhead positions with the Gas Metal Arc and Flux Core Arc welding processes. Welding codes, standards and specifications will be reviewed. Prerequisite: Pass WLD-113A.

**WLD-115A: Gas Tungsten Arc Welding (GTAW) A (4 credits)**

The first half of WLD-115 which provides the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet welds in flat and horizontal positions with the Gas Metal Arc Welding (GMAW) process. Plasma arc cutting will also be covered.

**WLD-115B : Gas Tungsten Arc Welding (GTAW) B (4 credits)**

The second half of WLD-115 which provides the opportunity to acquire additional knowledge and skills needed to perform more advanced fillet and groove welds in vertical and overhead positions with the Gas Tungsten Arc welding process. Welding codes, standards and specifications will be reviewed. Prerequisite: Pass WLD-115A.

## **Wildland Fire Science**

**FRP-243: Wilderness I: Psychology of Survival (3 credits)**

Students will learn how to be mentally and physically prepared to survive in the wilderness, the psychology of surviving, and what to do when things go wrong. The course explores the science of survival. Other topics include disaster preparedness, ropes and knots, heat related injuries and increasing situational awareness.