

2023-2024 CTE Pathways Program Course Schedule

Course offerings subject to change based on enrollment and availability

Fall 2023: September 25th – December 9th

Class	Credits	Days Offered	Time Offered
AB-113: Collision Repair I	6	M/T	7:00am – 12:20pm
ABR-125: Collision Repair/Refinishing I	6	W/TH	7:00am – 12:20pm
AM-100: Automotive Fundamentals I	4	M-TH	7:30-9:30am
AM-116: Remote Control Car Fundamentals	4	M-TH	3:30-5:30pm
AM-118: Small Engine Repair	4	M-TH	1:15-3:15pm
MFG-102: Makerspace	1	M/W	3:30-5:00pm
MTT-121A/B: CNC I: Set-Up & Operation	2	T/TH	3:30-5:30pm
MUS-247: Sound for Media	3	W	3:00-5:50pm
WLD-111A/B: Shielded Metal Arc Welding	4	M/T/W/TH	7:30-9:30am
WLD-111A/B: Shielded Metal Arc Welding	4	M/T/W/TH	1:15-3:15pm
WLD-111A/B: Shielded Metal Arc Welding	4	M/T/W/TH	3:30-5:30pm

Winter 2024: January 8th – March 22nd

Class	Credits	Days Offered	Time Offered
AB-133: Collision Repair II	6	M/T	7:00am – 12:20pm
ABR-127: Collision Repair/Refinishing II	6	W/TH	7:00am – 12:20pm
AM-100: Automotive Fundamentals I	4	M-TH	3:30-5:30pm
AM-116: Remote Control Car Fundamentals	4	M-TH	1:15-3:15pm
AM-118: Small Engine Repair	4	M-TH	7:30-9:30am
MFG-102: Makerspace	1	M/W	3:30-5:00pm
MTT-121A/B: CNC I: Set-Up & Operation	2	T/TH	3:30-5:30pm
MUS-107: Intro to Audio Recording I	3	M	6:30-9:20pm
WLD-113A/B: Gas Metal/Flux Core Arc Welding	4	M/T/W/TH	7:30-9:30am
WLD-113A/B: Gas Metal/Flux Core Arc Welding	4	M/T/W/TH	1:15-3:15pm
WLD-113A/B: Gas Metal/Flux Core Arc Welding	4	M/T/W/TH	3:30-5:30pm

Spring 2024: April 1st – June 14th

Class	Credits	Days Offered	Time Offered
AB-222: Collision Repair III	6	M/T	7:00am – 12:20pm
ABR-129: Collision Repair/Refinishing III	6	W/TH	7:00am – 12:20pm
AM-100: Automotive Fundamentals I	4	M-TH	1:15-3:15pm
AM-116: Remote Control Car Fundamentals	4	M-TH	7:30-9:30am
AM-118: Small Engine Repair	4	M-TH	3:30-5:30pm
MFG-102: Makerspace	1	M/W	3:30-5:00pm
MTT-121A/B: CNC I: Set-Up & Operation	2	T/TH	3:30-5:30pm
MUS-148: Live Sound Engineering	3	W	6:30-9:20pm
WLD-115A/B: Gas Tungsten Arc Welding	4	M/T/W/TH	7:30-9:30am
WLD-115A/B: Gas Tungsten Arc Welding	4	M/T/W/TH	1:15-3:15pm
WLD-115A/B: Gas Tungsten Arc Welding	4	M/T/W/TH	3:30-5:30pm

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

2023-24 CTEP Course Descriptions

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.

AB-133: Collision Repair II (6 credits)

Repair major body damage using modern frame repair equipment. Includes repair and replacement of bolt-on, bonded, and welded components using the latest technology. Includes introduction to computerized measuring and damage analysis.

Prerequisites: AB-113

AB-222: Collision Repair III (6 credits)

Major collision repair with a systems approach: frame and structure, panels, suspension and brakes, electrical and cooling systems. Emphasis on frame and unibody repair, replacement of welded body panels, and diagnosis and repair of related damage. Prerequisites: AB-133

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.

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

Application of solvent and waterborne finishes, including spot repairs, color matching, complete refinishing, and problem solving. Introduction to computerized color information retrieval and mixing.

Prerequisites: ABR-125

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

Application of solvent and waterborne basecoats and tri-coats and urethane topcoats, using both foreign and domestic refinish systems. Includes complete refinishing, spot and panel painting, color matching and problem solving.

Prerequisites: ABR-127

Automotive

AM-100: Automotive Fundamentals (4 credits)

An introductory automotive service class intended to provide fundamental knowledge and basic experience about automobiles. Covers automotive systems, preventative maintenance and performing basic repairs. Also provides skill and knowledge for purchasing cars, choosing quality mechanics, and making good economic decisions about repairs and costs. Intended generally to enhance the overall satisfaction of being an automobile consumer and car owner.

AM-116: Remote Control Car Fundamentals (4 credits)

This course is intended to provide an exploration into mechanical and electrical systems found on 1/10 scale electrically propelled trucks. Students will have classroom instruction to cover operation of; suspension systems, drive train systems, gear reductions, battery construction, battery maintenance and charging, Electric motor operation, maintenance and repair. Students will assemble a remote-controlled model vehicle throughout the term with the opportunity to test and operate on a controlled course with the successful completion of the class assignments.

AM-118: Small Engine Repair (4 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.

Manufacturing

MFG-102: Makerspace: An Introduction to Digital Manufacturing (1 credit)

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.

Machine Tool Technology

MTT-121A/B: CNC Set-Up and Operation [4 credits (two credits for section A & two credits for section B)]

This two-term course spanning Fall and Winter terms is the first course in the CNC sequence. Students will learn basic skills including how to properly set-up and operate both CNC milling and turning centers. Students will also learn G & M codes related to basic machine set-up and operation. Designed for students with little or no previous CNC experience.

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-148: Live Sound Engineering (3 credits)

Introduction to the basic techniques and tools used in live sound engineering and mixing. Areas of study include set up, signal path, microphone applications, hardware, and outboard gear.

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.