

COURSE SYLLABUS AUTOMOTIVE TECHNOLOGY I

7213 Principles of Automotive Services 7205 Brake Systems 7212 Steering & Suspensions Fall 2022

PROGRAM TITLE: Automotive Technology I

DOE CODE: See above

RECOMMENDED GRADE LEVELS: 10, 11, 12

PREREQUISITES: None

HIGH SCHOOL CREDITS: 3 per semester (6 total per school year)

ELECTIVE INFORMATION: Counts as a Directed Elective or Elective for all diplomas

HOW WCC CAN HELP MEET GRADUATION PATHWAYS:

Pathway 3 Pathway 1

> CTE elective high school credits Technical honors diploma **Technical Honors Diploma Industry Certification** 2 Advanced CTE Courses

Pathway 2

Dual credits Work-Based Learning

INSTRUCTOR: Brad Bever

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PROGRAM DESCRIPTION: Students in Automotive Technology I learn to maintain and repair all types of vehicles. Students learn about steering and suspension, braking systems, manual transmissions and differentials, automatic transmissions, air conditioning, and engine repair. Mathematical skills will be reinforced through precision measuring activities and cost estimation/ calculation activities. Scientific principles taught and reinforced in this program include the study of viscosity, friction, thermal expansion, and compound solutions. Written and oral skills will also be emphasized to help students communicate with customers, other students, and instructors. This program is NATEF (National Automotive Technicians Education Foundation) certified.

MAJOR LEARNING OBJECTIVES:

- 1. Apply and adapt appropriate workplace behaviors and characteristics to prepare for automotive careers.
- 2. Analyze vehicle components and system operations to establish accurate diagnosis and repair procedures.
- 3. Analyze vehicle system defects to determine necessary service.
- 4. Select appropriate industry tools and procedures to perform service and repairs on various vehicle components and systems.

REQUIRED TEXT/CURRICULUM MATERIALS:

- PAC-Fundamentals of Automotive Technology; Jones & Bartlett Learning
- CDX Light Vehicle Online Curriculum; Jones & Bartlett Learning
- CDX Student Workbook; Jones & Bartlett Learning
- All-Data Online System
- Identafix
- SP2 Online Safety Training System

EARLY COLLEGE PROGRAM:

Whitewater Career Center is an Early College Career Center. Automotive Technology students may earn the Ivy Tech Maintenance and Light Repair Certificate by successfully completing all dual credit courses available in Automotive Technology I and II.

DUAL CREDITS AVAILABLE:

AUTI 100 Basic Automotive Service

Ivy Tech 3 credits

AUTI 111 Electrical Systems I

Ivy Tech 3 credits

AUTI 121 Brake Systems

Ivy Tech 3 credits

AUTI 122 Steering & Suspension Systems

Ivy Tech 3 credits

AUTI 145 Driveline Service

Ivy Tech 3 credits

METHODS OF INSTRUCTIONAL DELIVERY:

This course will be delivered using a variety of delivery methods. Lecture, class discussion, lab work, and individual and group exercises and activities will be used to deliver the class material.

EVALUATION METHODS:

- Classroom work
- Lab work
- Test/Quizzes
- Homework
- Dual credit course projects and exams
- Participation and attendance

GRADING CRITERIA:

Assignments are divided into three categories: Classwork (40%), Projects/Assessments (40%), and Work Ethic (20%). Work Ethic includes daily participation and engagement in the class.

GRADING SCALE:

A+	99-100%	C+	78-79%
Α	92-98%	С	72-77%
A-	90-91%	C-	70-71%
B+	88-89%	D+	68-69%
В	82-87%	D	62-67%
B-	80-81%	D-	60-61%
		F	59% and below

ATTENDANCE AND DISCIPLINE:

WCC attendance and discipline policies will be followed as detailed in the Student Handbook.

REQUIRED CONSUMABLE MATERIALS AND EQUIPMENT:

- Student kit
- 1" black view binder