



## COURSE SYLLABUS

### DIESEL TECHNOLOGY I

7216 Principles of Diesel Technology

7210 Diesel Steering & Brakes

7211 Diesel Transmissions

Fall 2022

**PROGRAM TITLE:** Diesel 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 1**

CTE elective high school credits

Technical Honors Diploma

**Pathway 2**

Work-Based Learning

**Pathway 3**

Technical honors diploma

Industry Certification

2 Advanced CTE Courses

**INSTRUCTOR:** Jarrod Hokey  
jhokey@fayette.k12.in.us  
(765) 825-0521 x22104

**PROGRAM DESCRIPTION:** The program is designed to provide hands-on training related to modern diesel engines in tractor trailers, electric generators, farm and construction equipment, and diesel-fueled cars and trucks. Students learn engine operating principles and theories as well as diesel-fuel systems. Topics covered include inspection, troubleshooting, overhaul, and engine replacement procedures. The typical school day is divided between classroom and laboratory experiences concerned with all phases of repair work. Instruction and practice is provided in the diagnostics and repair of engines. The use of technical manuals, hand and power tools, and testing and diagnostic equipment is also studied in the program.

**MAJOR LEARNING OBJECTIVES:**

1. Develop employability skills to be successful in placement of a postsecondary institution and/or career related area.
2. Construct personal goals to structure successful paths recognized by business and industry.
3. Analyze diesel engine operations to diagnose and repair malfunctions.
4. Examine various systems to diagnose and repair malfunctions.
5. Evaluate fuel and other fluids used in diesel engines to perform appropriate maintenance and optimization procedures.

**TEXTBOOK/CURRICULUM MATERIALS:**

- Fundamentals of Medium/Heavy Duty Diesel Engines; 1st Edition; CDX Learning
- Fundamentals of Medium/Heavy Duty Diesel Systems; 2nd Edition; CDX Learning
- All-Data Online System
- SP2 Online Safety Training System
- Truck Series Online System

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

**ATTENDANCE AND DISCIPLINE:**

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

**REQUIRED CONSUMABLE MATERIALS AND EQUIPMENT:**

- Student kit