



**Course Syllabus
SEMESTER
School of STEM**

<i>Course Name:</i>	Shop Truck Operation- Mechanical System Fundamentals and Repair
<i>Course & Section Number:</i>	DSL 253-XXX
<i>Meeting Day(s) & Time(s):</i>	
<i>Credits:</i>	2
<i>Contact Hours:</i>	4
<i>Text:</i>	CDX Section 1 Foundation and Safety. 369679 ISBN13: 9781284110586
<i>Instructor's Name:</i>	
<i>Office Hours & Location:</i>	
<i>OCC Phone:</i>	
<i>OCC Email:**</i>	
<i>Additional Contact Information:</i>	

****Please use only Owens email for course communications.**

Catalog description:

This course introduces diesel technology students to the fundamental mechanical systems found on commercial trucks and equipment. Students will learn the purpose, function, and basic operation of major vehicle components — including electrical, driveline, suspension, braking, steering, and cooling systems — through a combination of lecture and hands-on lab exercises. The emphasis is on developing

foundational knowledge, safe shop practices, and basic diagnostic and inspection skills essential for entry-level technicians.

Prerequisite/Corequisites:

Course Materials:

CDX Section 01 Foundation and Safety

What You Will Learn in the Course

Course Objectives:

Upon successful completion of this course, students will be able to:

- Identify and describe the major mechanical systems in a heavy-duty truck.
- Demonstrate proper shop safety, tool usage, and PPE compliance.
- Perform basic inspections, measurements, and service procedures on key truck systems.
- Explain how individual systems work together in overall vehicle operation.
- Apply fundamental diagnostic skills to identify simple mechanical issues.

Student Learning Outcomes:

Students will:

Outcome	Where Assessed
Identify and describe the major mechanical systems in a heavy-duty truck.	Lab Work Orders, CDX Chapter Assignments, Final Exam
Demonstrate proper shop safety, tool usage, and PPE compliance.	Lab Work Orders, CDX Chapter Assignments, Final Exam
Perform basic inspections, measurements, and service procedures on key truck systems.	Lab Work Orders, CDX Chapter Assignments, Final Exam
Explain how individual systems work together in overall vehicle operation.	Lab Work Orders, CDX Chapter Assignments, Final Exam
Apply fundamental diagnostic skills to identify simple mechanical issues.	Lab Work Orders, CDX Chapter Assignments, Final Exam

Technology, Lab, and File Requirements:

CDX 2nd edition Online access code

ISBN13: 9781284110586

Books and labs will be posted to Blackboard.

<https://www2.jblearning.com/my-account/dashboard/products>

Academic Support

Disability Services Resource Center: If you have a disability or acquire one, you may be entitled to receive reasonable accommodations intended to assure you an equal opportunity to participate in and benefit from the program. To receive more information or to register for accommodations, please contact the Disability Resource Center at 567-661-7007, email disability@owens.edu, visit <https://www.owens.edu/disability/>, or stop by College Hall 124.

Tutoring Services: Owens Community College offers academic tutoring and assistance in a variety of subjects including: accounting, computing, economics, mathematics, science, and writing. For more information go to: <https://www.owens.edu/successcenters/>.

Counseling Services: Counseling Services provides assistance to students experiencing personal, educational, interpersonal/relationship, family, social, or psychological difficulties. If you feel you may benefit from this service, please contact them at counselingservices@owens.edu. More information is at <https://www.owens.edu/counseling/>.

Campus and Community Connections: The Center for Campus and Community Connections (College Hall 123) is a walk-in office created to provide retention support through resource stability initiatives and community connections. Go here for more information: <https://www.owens.edu/connection/> or contact connections@owens.edu

Owens Library: The Owens Library offers two locations (Toledo and Findlay) as well as online resources. For more information visit <https://www.owens.edu/library/>.

Students can find more information on campus resources, student support, student life, and security at this [link](#).

General Information

Student Code of Conduct: All students are expected to follow Owens Community College's Student Code of Conduct, which includes academic honesty, encompassing plagiarism. See the Board Policy for more information.

Anti-Discrimination and Harassment & Title IX/Sexual Misconduct: All students, faculty, and staff are expected to follow Owens Community College's Anti-Discrimination and Harassment Policy and the College's Title IX Policy/Sexual Misconduct Procedures and Guidelines. The College strictly prohibits and will not tolerate harassment, discrimination, intimidation, or hostile/offensive working or learning environments.

Religious Accommodations: A student seeking an accommodation for an absence permitted under Ohio's Testing Your Faith Act must provide the instructor with a written email notice with the specific dates for an absence, and must do so not later than fourteen (14) days after the first day of instruction. Alternative accommodations are not retroactive, and no academic penalty will be imposed for an absence under the policy*. The request for an alternative accommodation will be kept confidential. Students with questions about a religious accommodation under Ohio's Testing your Faith Act may contact the College's Office of Academic Affairs: provost@owens.edu

The policy may be found on the Owens website: [3358:11-2-63 Accommodation for a Student Absence for the Observance of Religious Beliefs and Practices Policy](#)

Document Collection: Throughout the semester, your instructors may ask for a variety of assignments including tests and/or quizzes for student learning of institutional general education competencies or program assessment. Please save all your class materials until the end of the semester.

Classroom Admittance: OCC classes shall only be attended by the officially registered OCC students or perspective students, instructor of record, guest lecturer, or substitute. Visitors are not permitted to be in the classroom and should not be invited to attend or participate in the class. See [FERPA](#) regulations for more information.

Use of AI Tools: This course requires you to complete various assignments that assess your understanding and application of the course content. You are expected to do your own work and cite any sources you use properly. You are not allowed to use any artificial intelligence (AI) tools, such as chatbots, text generators, paraphrasers, summarizers, or solvers, to complete any part of your assignments. Any attempt to use these tools will be considered academic misconduct and will be dealt with according to the Owens Community College academic integrity policy. Students are expected to complete all work independently and without the assistance of AI-generated content. If you have any questions about what constitutes acceptable use of AI tools, please consult with the instructor *before* submitting your work.

Student Responsibilities & Instructor Expectations

1. The student is responsible for all material discussed in class, handed out, seen or heard in visual/audio, or written on the board.
2. The student is responsible for all work assigned whether discussed in class or not.
3. Any missed classes, tests, or assignments must be made up by the end of the semester through agreement with the instructor. Excused absences included, sick, death, and emergency (all at the discretion of the instructor). 2 unexcused absences equal a drop in a letter grade. 2 tardies equal 1 unexcused absence.
4. The instructor, with permission of the chairman, whenever appropriate and necessary, reserves the right to amend, adjust, or deviate from the course outline and lecture topic areas to assure the students of the best possible education from the course.

Safety Glasses

Students will not be permitted to attend lab classes without the required safety glasses.

Safety

Since personal safety is a major concern of both this College and the employers, students will be expected to conduct themselves in a safe manner at all times. Students will be required to follow safety requirements pertaining to: safety glasses, clothing, labs, and work procedures. (Remember SAFETY is everyone's job!)

Suggested Minimum Tool List

A list of tools are provided for the student's consideration. The tools are NOT required for this class but will be convenient for the student to own when employed and performing the tasks taught in this class.

Instructor Expectations:

Instruction will be in lecture and lab formats. Don't message on Blackboard, but email instructors Owens' email. Responses will be sent back before 2 business days.

Excused absences included, sick, death, and emergency (all at the discretion of the instructor). 2 unexcused absences equal a drop in a letter grade. 2 tardies equal 1 unexcused absence.

How Grades are Determined and Major Assignments

The final course grade is to be computed using the following weights.

Evaluation Measure	Value	Student Learning Outcome Assessed
Lab:	60 %	
Homework, Quizzes and, Tests:	30%	
Final:	10%	

Grading Scale

Grading Procedure:

Grades will be calculated on the following scale.

94% and Above	A
87% to Less than 93%	B
78% to Less than 86%	C
70% to Less than 77%	D
Less Than 69%	F

Tentative Class Assignments

Week	SLO	Topic	Due Dates
1	1,2,3	• Lecture: Orientation, syllabus overview, shop rules and procedures. PPE, hazard communication, and safe tool usage. • Lab: Shop tour and equipment orientation. Basic tool identification and use. Lift and truck positioning safety exercises.	
2	1, 2, 3	• Lecture: Overview of truck electrical systems (batteries, starters, alternators, wiring basics). • Lab: Battery inspection, cleaning, and load testing. Starter/alternator identification. Multimeter practice.	Due end of week 3
3	1, 2, 3	• Lecture: Purpose and components of driveline systems (transmission, driveshaft, differential). • Lab: Driveshaft removal/inspection. U-joint checks and lubrication. Transmission/differential visual inspection.	Due at end of week 4
4	1, 2, 3,	- Lecture: Suspension types and components. Steering system overview and inspection points. • Lab: Suspension inspection. Airbag leak checks. Steering linkage inspection and adjustments.	Due at end of week 5
5	1, 2, 3,	• Lecture: Air brake fundamentals: compressors, reservoirs, valves, chambers, and safety devices. • Lab: Air system leak-down tests. Brake chamber inspection. Slack adjuster checks and brake lining inspection.	Due at end of week 6
6	1, 2, 3	• Lecture: Introduction to cooling, lubrication, and fuel delivery systems. • Lab: Coolant inspection and pressure test. Fuel system inspection. Oil change demonstration	Due at end of week 7
7	1, 2, 3	• Lecture: Introduction to preventive maintenance schedules and DOT inspection basics. • Lab: Complete PM inspection checklist. Document findings. Perform minor service tasks.	All Assignments Due end of Week 8

Week	SLO	Topic	Due Dates
8	1, 2, 3	• Lecture: Review of all major systems and safety principles. Career pathways discussion. • Lab: Final hands-on project: Full-vehicle inspection and report presentation.	End of Week 8

Disclaimer: The instructor reserves the right to amend this syllabus as deemed necessary and will communicate such amendment to the students in the course. Please note that while unlikely, there is a possibility courses might need to change the delivery method due to external issues like public health concerns, weather issues, etc. If this happens, the college will communicate any changes via email and/or other communication methods.