



**Course Syllabus
SEMESTER
School of STEM**

<i>Course Name:</i>	Automotive Service Fundamental
<i>Course & Section Number:</i>	AUT110-XXX
<i>Meeting Day(s) & Time(s):</i>	
<i>Credits:</i>	2
<i>Contact Hours:</i>	1 Lecture 3 Lab
<i>Text:</i>	
<i>Instructor's Name:*</i>	
<i>Office Hours & Location:</i>	
<i>OCC Phone:</i>	
<i>OCC Email:**</i>	
<i>Additional Contact Information:</i>	

Catalog description:

Provides the student with a foundation in the field of Automotive Technology, including basic service operations such as lubrication, oil change, preventative maintenance, and tool and equipment usage. Experience is gained working on customer vehicles under close supervision of the instructor. Students in the class will learn to operate automotive scan tools used to diagnose computer-controlled systems found on late model automobiles and light trucks. Both original equipment and aftermarket scan tools will be used in this course.

Prerequisite/Corequisites:

None

Course Materials:

State the name of the text, course materials, and all required readings.

MODERN AUTOMOTIVE TECHNOLOGY (TEXT + COMMON CARTRIDGE FOR LMS,
1YR. INDV. ACCESS KEY PACKET)

JAMES DUFFY

ISBN13: 9781649254153

EDITION: 10TH

FORMAT: PAPERBACK W/ ACCESS CODE

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*If a **print book, e-book, or access code** is required for class, you can access the Owens Community College e-Campus Bookstore by accessing the online link, called “Find Books” on the course schedule for each course section. See the example below.*

OER and Owens Community College Library Resources *(Open Educational Resources are free online materials for instructor and student use. Some OER material may be available in print in the Owens Community College Library.)*

TOOL ROOM

The Transportation Technologies uses a central tool room to supply students with the tools needed during their lab time on campus. The students will be required to have an Owens student ID to acquire the tools. The student who signed out the tools is responsible for those tools and will be charged the replacement cost if they are lost or misplaced. Check with the tool room attendant regularly to make sure your account is cleared.

What You Will Learn in the Course

Course Objectives:

1. Identify and explain the operation of and demonstrate the servicing of an automotive cooling system.
2. Perform lubrication, change oil and filter and service an auto.
3. Name the various systems of the automobile and identify their components.
4. Demonstrate the use of shop manuals and reference manuals.
5. Identify and explain the use of fasteners, sealants.

6. Identify and explain the use of precision measuring tools.
7. Identify typical job opportunities within the major career areas.
8. Demonstrate shop clean-up, maintenance and safety.
9. Demonstrate proper basic scanner and Battery Tester use.

Student Learning Outcomes:

TASK LIST

Throughout the term of this course, students will perform or have demonstrated to them the following tasks. All tasks must be performed according to manufacturer's instruction/requirements, any deviation must be approved by the instructor prior to the next step.

1. Perform multi-point safety inspections for all vehicles entering the shop for work you will do several of these during the course of the class
2. Test batteries for state of charge and general condition using midtronics battery testers
3. Perform oil and filter change.
4. Lubricate suspension and steering systems if possible most modern vehicle no longer come with grease fittings
5. Perform tire rotations and torque lug nuts per manufacture's specifications
6. Inspect tire condition and wear (tread depth) on all vehicles then make recommendations
7. Mount and balance tires per manufacture's recommended procedures
8. Find manufacturer's recommended tire inflation decal on vehicle. Know the correct pressure to set tires to
9. Access and use **General Motors Service Information** (SI), Alldata, or Shopkey etc.
10. Locate and interpret vehicle and major component identification numbers (VIN, vehicle certification labels, and calibration decals).
11. Inspect exhaust manifold, exhaust pipes, muffler(s), catalytic converter(s), resonator(s), tail pipe(s), and heat shield(s); perform necessary action.
12. Identify general shop safety rules and procedures.

13. Utilize safe procedures for handling of tools and equipment.
14. Identify and use proper placement of floor jacks and jack stands.
15. Identify and use proper procedures for safe lift operation.
16. Utilize proper ventilation procedures for working within the lab/shop area.
17. Identify marked safety areas.
18. Identify the location and the types of fire extinguishers and other fire safety equipment; demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment.
19. Identify the location and use of eyewash stations.
20. Identify the location of the posted evacuation routes.
21. Comply with the required use of safety glasses, ear protection, gloves, and shoes during lab/shop activities.
22. Identify and wear appropriate clothing for lab/shop activities.
23. Secure hair and jewelry for lab/shop activities.
24. Locate and demonstrate knowledge of material safety data sheets (MSDS).
25. Identify tools and their usage in automotive applications.
26. Identify standard and metric designation.
27. Demonstrate safe handling and use of appropriate tools.
28. Demonstrate proper cleaning, storage, and maintenance of tools and equipment.
29. Demonstrate proper use of precision measuring tools (i.e. micrometer, dial-indicator, and dial-caliper).
30. Identify information needed and the service requested on a repair order.
31. Identify purpose and demonstrate proper use of fender covers, mats.
32. Review vehicle service history.
33. Complete work order to include customer information, vehicle identifying information, customer concern, related service history, cause, and correction.

34. Investigate TSB Information
 35. Ensure vehicle is prepared to return to customer per school/company policy (floor mats, steering wheel cover, etc.).
 36. Inspect, test, and replace thermostat and housing.
 37. Test coolant; drain and recover coolant; flush and refill cooling system with recommended coolant; bleed air as required.
 38. Inspect, and test fan(s) (electrical or mechanical), fan clutch, fan shroud, and air dams.
 39. Use a scan tool to access codes on a vehicle during class
- Inspect, replace, and adjust drive belts, tensioners, and pulleys

Students will:

Outcome	Where Assessed
Hands on	Lab by Instructor

Technology, Lab, and File Requirements:

Alldata <https://my.alldata.com/ip>

Shop Key Pro “no pass word needed”

Identifix: NAME **PW:** NAME

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.

Student Responsibilities & Instructor Expectations

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

Grading Procedure:

GRADE COMPILATION:

Lab	60%
Quiz	30%
Final Exam	10%
Total	100%

GRADE SCALE:

94-100	A
87-93	B
78-86	C
70-77	D
0-69	F

Specific Course Rules & Classroom Procedures:

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.
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 this college and 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!)

Specific Course Rules:

- Computer Headphones are required.
ABSOLUTELY NO DOWNLOADING IN COMPUTER LAB.

Specific Course Rules: (This can include but is not limited to: policies on attendance, make-up/late work, class participation, tape recording, cell phone use, and electronic device use.)

Lab Safety Policy

Safety is very important for everyone. Safety guidelines are to be adhered to in performing all tasks.

1. Safety glasses must be worn at all times upon entering the lab areas. No exceptions.
2. Proper clothing and shoes are to be worn in the labs.
3. Full-length pants, proper work short sleeve or long sleeve shirts, and appropriate industry related footwear (non-slip soles, puncture proof material, steel toe, etc.) must be worn in the lab areas.
4. Loose clothing, scarves, ties, shorts, jewelry, etc. are not permitted while working in the labs.
5. Long hair should be pulled up.

Hearing protection, masks, gloves, and respirators should be used when directed by your instructors.

Be aware of your surroundings and report anything potentially unsafe to your instructor or other college employee. When in doubt ask!

Disability Resources Services:

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 in College Hall 116 at 567-661-7007 or email disability@owens.edu.

Classroom Admittance

OCC classes (e.g., traditional, land-based, laboratory, hybrid, asynchronous, online, synchronous online, etc.) shall only be attended by the officially registered OCC students, instructor of record, guest lecturer, or substitute. Visitors are not permitted in the classroom and should not be invited to attend or participate in the class. See FERPA for specifics.

<https://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>

Smoke/Tobacco Free Campus. As of January 1, 2016, Owens Community College is a smoke and tobacco-free campus. Smoking and the use of tobacco products are prohibited in any College building, College vehicle or on College grounds or property owned or controlled by the College.

Student Code of Conduct:

All students are expected to follow Owens Community College's Student Code of Conduct. If you are unfamiliar with the code, it can be found at

https://www.owens.edu/student_services/code_conduct.html

Resources: (This can include but is not limited to: Testing Center, Writing Center, Math Lab, Science Center, Library.)

Miscellaneous Information:

Disclaimer: "The instructor reserves the right to amend this syllabus as deemed necessary and will communicate such amendment to the students in the course."

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