



**Course Syllabus
SEMESTER
School of STEM**

Program Name: Transportation Technologies

Course Name: Vehicle Accessory Systems

Course Number: AUT 232-XXX

Credits: 2

Contact Hours: 1.5 Lecture 1.5 Lab

Instructor's Name:

Office Hours & Location:

Campus Phone:

Campus E-mail:

Additional Contact Information:

Catalog Description: Hands-on experience is given on vehicle accessories operation and diagnostics. Systems covered include cruise controls, climate controls, power door locks, power windows and window defoggers in automobiles and trucks.

Prerequisites/Co-Requisites: AUT 130, AUT 133

Lab Fees: COST

Current Textbooks, Materials, Equipment (software/hardware requirements):

General Information

For information on FERPA, Cheating and Plagiarism, Assessment of Student Learning Outcomes and Student Code of Conduct, please refer to the appropriate section of the current Owens Community College Catalog online.

Course Outcomes:

The student given the vehicle or component and the tools and equipment will, with at least 90% accuracy:

1. Identify and locate major components of the system
 - a. On the assigned vehicle
 - b. By using the circuit schematic
2. Explain the correct operation of the system
3. Read and interpret:

- a. Wiring diagrams
 - b. Troubleshooting flow charts
4. Diagnose any malfunction
5. Perform any or all needed repairs
6. Test the system for proper operation
7. Demonstrate the ability to use:
 - a. Any special test equipment
 - b. The DVOM
 - c. The various repair manuals

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 instruction/requirements; any deviation must be approved by the instructor prior to the next step.

1. Disable and enable supplemental restraint system (SRS) in accordance with manufacturer's procedures.
2. Diagnose incorrect operation of cruise control systems; repair as needed.
3. Diagnose supplemental restraint system (SRS) concerns; determine necessary action. (Note: Follow manufacturer's safety procedures to prevent accidental deployment.)
4. Disarm and enable the airbag system for vehicle service.
5. Check for module communication errors using a scan tool.
6. Diagnose the cause of false, intermittent, or no operation of anti-theft system.
7. Diagnose and repair power windows.
8. Diagnose and repair power door locks.
9. Diagnose and repair power and heated seats.
10. Diagnose and repair heated glass and heated mirrors.
11. Diagnose and repair electronic module communication circuits.
12. Diagnose and repair supplemental restraints.
13. Diagnose and repair automatic climate control systems.
14. Diagnose and repair antitheft systems.
15. Diagnose and repair audio system problems.
16. Disable and enable supplemental restraint systems.
17. Diagnose the cause of incorrect operation of warning devices and other driver information systems; determine necessary action.
18. Diagnose incorrect horn operation; perform necessary action.
19. Diagnose incorrect operation of motor-driven accessory circuits; determine necessary action.
20. Diagnose body electronic system circuits using a scan tool; determine necessary action.
21. Check electrical/electronic circuit waveforms; interpret readings and determine needed repairs.
22. Repair CAN/BUS wiring harness

23. Identify electronic modules, security systems, radios, and other accessories that require reinitialization or code entry after reconnecting vehicle battery.
24. Diagnose (troubleshoot) incorrect electric lock operation (including remote keyless entry); determine necessary action.
25. Describe the operation of keyless entry/remote-start systems.
26. Describe the process for software transfers, software updates, or flash reprogramming on electronic modules.

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 both 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!)

- 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.

Safety glasses must be worn at all times upon entering the lab areas. No exceptions. Proper clothing and shoes are to worn in the labs. 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. Loose clothing, scarves, ties, shorts, jewelry, etc. are not permitted while working in the labs. 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!

Please note, that while unlikely, there is a possibility courses might need to change delivery method due to public health concerns. If this happens, the college will communicate any changes. Currently, masks are permitted but not required on campus; however, this requirement may change depending on circumstances. If changes are made, you will be informed via email and/or other communication methods. The college continues to track cases of COVID-19. If you test positive COVID-19 you must report that to the covid19@owens.edu email. Visit the college website for more information: <https://www.owens.edu/covid19/>

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

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/Sexual Misconduct Procedures and Guidelines. The College strictly prohibits and will not tolerate harassment, discrimination, intimidation, or hostile/offensive working or learning environments.

If you are unfamiliar with the Anti-Discrimination and Harassment Policy, it can be found at: <https://www.owens.edu/trustees/procedures/proc3358-11-4-17.pdf>

If you are unfamiliar with the Title IX/Sexual Misconduct Procedures and Guidelines, it can be found at: <https://www.owens.edu/trustees/procedures/proc3358-11-4-17-titleIX.pdf>

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."