

# Louisiana Delta Community College

## Academic Affairs Master Syllabus

**Course Name:** GENERAL ENGINE DIAGNOSIS

**Course Number:** AUTO 1800

**Credit Lecture hours:** 0      **Credit Lab Hours:** 3      **Contact Hours:** 90

**Textbook, Author, and Publisher:** To be provided by College Campus

**Instructor Information:** To be provided by College Campus

**Class Location:** To be provided by College Campus

**Course Description:** This course teaches the principles of internal combustion engines and the procedures and methods necessary to diagnose general engine mechanical problems.

**Prerequisites:** None

**Co-requisites:** None

### **Learning Outcomes:**

On completion of this course, the student will be able to:

1. Identify and interpret engine performance concerns; determine necessary action. (P-1)
2. Research applicable vehicle and service information, such as engine management system operation, vehicle service history, service precautions, and technical service bulletins. (P-1)
3. Locate and interpret vehicle and major component identification numbers (VIN, vehicle certification labels, and calibration decals). (P-1)
4. Inspect engine assembly for fuel, oil, coolant, and other leaks; determine necessary action. (P-2)
5. Diagnose abnormal engine noise or vibration concerns; determine necessary action. (P-2)
6. Diagnose abnormal exhaust color, odor, and sound; determine necessary action. (P-2)
7. Perform engine absolute (vacuum/boost) manifold pressure tests; determine necessary action. (P-1)
8. Perform cylinder power balance test; determine necessary action. (P-1)
9. Perform cylinder compression tests; determine necessary action. (P-1)
10. Perform cylinder leakage test; determine necessary action. (P-1)
11. Diagnose engine mechanical, electrical, electronic, fuel, and ignition concerns with an oscilloscope and/or engine diagnostic equipment; determine necessary action. (P-1)
12. Prepare 4 or 5 gas analyzer; inspect and prepare vehicle for test, and obtain exhaust readings; interpret readings, and determine necessary action. (P-1)
13. Verify engine operating temperature; determine necessary action. (P-1)
14. Perform cooling system pressure tests; check coolant condition; inspect and test radiator, pressure cap, coolant recovery tank, and hoses; perform necessary action. (P-1)
15. Verify correct camshaft timing. (P-2)

**Assessment Measures:** To be provided by the College Campus.

**Library Resource Center:**

The Delta Library and Learning Resource Center is committed to providing quality information and learning resources and services, including technology, in supporting the overall mission of Delta Community College and its commitment to lifelong learning.

**Special Accommodations:**

Louisiana Delta Community College complies with Section 504 of the Rehabilitation Act, as well as the Americans with Disabilities Act. Students with disabilities who attend the Monroe campus may make a request by contacting the Director of Counseling and Disability Services (See College Directory for contact information.) at the beginning of each semester. Reasonable accommodations will be attempted for students with documented disabilities. If an impairment is identified later in the semester, a non-retroactive accommodation plan will be developed. Students at satellite campuses should contact the Coordinator of Student Affairs at their particular campus.

**Title IX:**

Louisiana Delta Community College is committed to protecting the rights of students, which includes compliance with Title IX requirements. As such, the institution and members of our community will not tolerate the offenses of dating violence, domestic violence, sexual assault, and stalking. Students with Title IX concerns should contact the College's Title IX Coordinator (See College Directory for contact information.) Students are required to complete Sexual Assault Awareness and Prevention Online Training. Access to this online course will be sent out through the Delta email account.

**Student Code of Conduct:**

Louisiana Delta Community College encourages an environment of academic integrity and mutual respect. Students should read and follow both academic and behavioral expectations identified in the Code of Student Conduct that can be found online at [www.ladelta.edu](http://www.ladelta.edu). Students are expected to act with integrity, respect the rights of others, and conduct themselves in a professional manner. The Honor Code prohibits academic misconduct such as cheating, engaging in unauthorized collaboration, and plagiarism. Violations of the Code of Student Conduct may result in disciplinary action as provided in the Code. Incidents are reported through the online Student Conduct system.