

Louisiana Delta Community College

Academic Affairs Master Syllabus

Course Name: EMISSIONS SYSTEMS DIAGNOSIS AND REPAIR

Course Number: AUTO 1840

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 procedures and methods necessary to diagnose and repair the myriad of emissions controls systems on modern automobiles.

Prerequisites: None

Co-requisites: None

Learning Outcomes:

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

Emissions Control Systems Diagnosis and Repair

1. Diagnose oil leaks, emissions, and drivability problems resulting from malfunctions in the positive crankcase ventilation (PCV) system; determine necessary action. (P-2)
2. Inspect, test, and service positive crankcase ventilation (PCV) filter/ breather cap, valve, tubes, orifices, and hoses; perform necessary action. (P-2)

Exhaust Gas Recirculation

1. Diagnose emissions and drivability problems caused by malfunctions in the exhaust gas recirculation (EGR) system; determine necessary action. (P-1)
2. Inspect, test, service, and replace components of the EGR system, including EGR tubing, exhaust passages, vacuum/pressure controls, filters and hoses; perform necessary action. (P-2)
3. Inspect and test electrical/electronic sensors, controls, and wiring of exhaust gas recirculation (EGR) systems; perform necessary action. (P-2)

Exhaust Gas Treatment

1. Diagnose emissions and drivability problems resulting from malfunctions in the secondary air injection and catalytic converter systems; determine necessary action. (P-2)
2. Inspect and test mechanical components of secondary air injection systems; perform necessary action. (P-3)
3. Inspect and test electrical/electronically operated components and circuits of air injection systems; perform necessary action. (P-3)

Learning Outcomes:

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

Intake air Temperature controls

1. Diagnose emissions and drivability problems resulting from malfunctions in the intake air temperature control system; determine necessary action. (P-3) intake air
2. Inspect and test components of intake air temperature control system; perform necessary action. (P-3) necessary

Early Fuel Evaporation (Intake Manifold Temperature) Controls

1. Diagnose emissions and drivability problems resulting from malfunctions in the evaporation control system; determine necessary action. (P-3) early fuel
2. Inspect and test components of early fuel evaporation control system; perform necessary action. (P-3) necessary

Evaporative Emissions Controls

1. Diagnose emissions and drivability problems resulting from malfunctions in the emissions control system; determine necessary action. (P-1) evaporative
2. Inspect and test components and hoses of evaporative emissions control system; perform necessary action. (P-2) perform
3. Interpret evaporative emission related diagnostic trouble codes (DTC's); determine necessary action. (P-1) determine necessary

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. 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.