Department:

Automotive Technology

Course Description:

This course is a lecture course, which provides up-to-date information on developing the skills to properly diagnose and fix drivability problems. Coverage includes OBD I and OBD II diagnosis as well as computerized power-train systems.

Course Competencies:

Upon completion of the course, the student should be able to:

1. Complete work order and check history.
2. Identify engine mechanical integrity.
3. Explore the fundamentals of fuel system theory.
4. Identify fuel system concerns.
5. Explore the fundamentals of ignition theory.
6. Identify ignition system concerns.
7. Identify induction system concerns.
8. Identify exhaust system concerns

Course Content:

A. Engine Performance
   1. General Engine Diagnosis
   2. Computerized Engine Controls Diagnosis and Repair
   3. Gasoline and Alternative Fuels
   4. On Board Diagnosis
   5. Ignition System Components and Operation
   6. Ignition System Diagnosis and Service
   7. Fuel, Air Induction, and Exhaust Systems Diagnosis and Repair

Learning Assessments:

Assessments may include: Quizzes, tests, project work, demonstrated competence, instructor observation, weekly assignments and/or written papers.

Instructional Materials:

Textbook: Halderman, J. (2020). *Automotive Technology: Principles, Diagnosis, and Service* (6th ed.). Pearson. ISBN-13: 978-0135257272

Lab Manual: Halderman, J. (2020). *ASE Correlated Task Sheets for Automotive Technology* (6th ed.). Pearson. ISBN-13: 978-0135257418

Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students **must** complete the "Disabilities Self-Identification Form" on our Disability Services website.

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.

A Note on Harassment, Discrimination and Sexual Misconduct

Highland Community College seeks to assure all community members learn and work in a welcoming and inclusive environment. Title VII, Title IX, and College policy prohibit harassment, discrimination and sexual misconduct. Highland Community College encourages anyone experiencing harassment, discrimination or sexual misconduct to talk to report to the Vice President for Student Services, the Human Resources Director or complete an online report about what happened so that they can get the support they need and Highland Community College can respond appropriately.

There are both confidential and non-confidential resources and reporting options available to you. Highland Community College is legally obligated to respond to reports of sexual misconduct, and therefore we cannot guarantee the confidentiality of a report, unless made to a confidential resource. Responses may vary from support services to formal investigations. As a faculty member, I am required to report incidents of sexual misconduct and thus cannot guarantee confidentiality. I must provide our Title IX coordinator with relevant details such as the names of those involved in the incident. For more information about policies and resources or reporting options, please review our Equity Grievance Policy.