

**Department:**

Automotive Collision & Refinishing Technology

**Course Description:**

Through a classroom and/or lab/shop learning and assessment activities, in this course students will: determine how to diagnose steering and suspension; diagnose electrical concerns; complete headlamp and fog/driving lamp assemblies and repairs; demonstrate self-grounding procedures for handling electronic components; determine diagnosis, inspection and service needs for brake system hydraulic service and repair needs for collision damaged cooling system components; distinguish between the under car components and systems; and determine the diagnosis, inspection and service requirements of active and passive restraint systems.

**Course Competencies:**

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

1. Determine how to diagnose steering and suspension.
2. Diagnose Electrical Concerns.
3. Complete headlamp and fog/driving lamp assemblies and repairs.
4. Demonstrate self-grounding procedures for handling electronic components.
5. Determine Diagnosis, inspection and service need for brake system hydraulic components.
6. Examine components of heating and air conditioning systems.
7. Determine the inspection, service and repair needs for collision damaged cooling system components.
8. Distinguish between the under car components and systems.
9. Determine the diagnosis, inspection and service requirements of active and passive restraint systems.

**Course Content:**

- A. Steering and Suspension
- B. Electrical Concerns
- C. Headlamp and Fog/Driving Lamp Assembly and Repair
- D. Self-Grounding for Electronic Components
- E. Brake System Hydraulic Components
- F. Heating and Air Conditioning System Components
- G. Inspection and Service Collision Damage to Cooling System Components
- H. Under Car Components and Systems
- I. Diagnose, Inspect, and Service Active and Passive Restraint Systems

**Learning Assessments:**

Competencies may be evaluated by multiple measures, including quizzes, tests, project work, demonstrated competence, instructor observation, weekly assignments and/or written papers.

**Instructional Materials:**

Textbooks: Duffy, J. E. (2016). *Auto Body Repair Technology* (6<sup>th</sup> ed.). Cengage Learning. ISBN-13: 978-1133702856

Duffy, J. E. (2016). *Tech Manual for Duffy's Auto Body Repair Technology* (6<sup>th</sup> ed.). Cengage Learning. ISBN-13: 978-1133702863

#### **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](#).