

Course Code: AFD 296

Course Title: Motorsport Vehicle System Assessment

Department: Applied Sciences and Technologies

Effective Date: Summer 2026

PCS Code: 1.2 - Occupational/Technical Instruction

CIP Code: 47.0604

Repeatability: 3

Credit Hours

Catalog Notation: 2-2-3

Credit Hour Distribution:

Lecture: 2

Lab: 2

Clinical: 0

Total: 3

General Course Information

Catalog Description

Simulation of an automotive aftermarket component installation repair shop. Emphasis on component selection, installation, and testing. Students will learn new shop practices, reinforce previously learned skills, and transition smoothly to job placement. Repeatable for a maximum of 12 credit hours.

General Course Objectives

Students will experience a simulation of an after-market automotive repair shop environment, including after-market component installation, component evaluation, diagnosis, and repair.

Minimum Placement Levels

English	Reading	Math
Placement into ENG 098	Placement into CCS 098	Placement into MAT 060

Prerequisites

Credit in AFD 111 or AFD 298

Methods of Evaluation

The minimum number of evaluation methods will include: 3 written projects.

Instructional Materials and Additional Supplies

My Automotive Lab, with Pearson E-Text access card for Automotive Technology (5). Halderman, Pearson 2016. 0133995542

Course Content

General Learning Outcomes (GLOs)

- **Critical Thinking and Information Literacy:** Students will demonstrate the ability to evaluate perspectives, evidence, and implications, and to locate, assess, and use information effectively.
- **Reasoning and Inquiry:** Students will demonstrate the ability to solve problems using deductive reasoning and logic, quantitative reasoning, or the scientific method.
- **Technology:** Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
After-Market Component Installer	<ol style="list-style-type: none"> 1. Understand what an After-Market Component Installer does. 2. Experience the working environment of an after-market installation and repair facility. 	5	1	0
Component Selection, Evaluation, and Testing	<ol style="list-style-type: none"> 1. Locate and evaluate after-market components that will meet customer needs. 2. Develop a systematic approach to predict the outcome of after-market modifications, and test the results. 3. Prepare written reports on the evaluation of after-market modifications. 	12	9	0
After-Market Component Installation	<ol style="list-style-type: none"> 1. Utilize previously learned automotive system fundamentals. 2. Select, operate, and interpret test equipment. 3. Troubleshoot for specific complaints, isolate the cause, and perform the correction quickly and accurately. 4. Select and operate tools safely and efficiently. 5. Develop critical thinking skills needed to install and operate after-market equipment. 	4	15	0
After-Market Modification Estimates	<ol style="list-style-type: none"> 1. Prepare and explain written estimates for after-market modifications, including communicating effectively about the diagnosis, the repairs necessary, the reasoning behind using after-market components, and any modifications needed to install them. 	6	5	0
Other Related After-Market Service Topics	<ol style="list-style-type: none"> 1. Develop research skills needed to stay current as well as to locate after-market components the industry offers. 	3	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	0