

Washtenaw Community College Comprehensive Report

ASV 277 Automotive Powertrain Systems Conditional Approval Effective Term: Fall 2015

Course Cover

Division: Advanced Technologies and Public Service Careers

Department: Automotive Services

Discipline: Auto Services

Course Number: 277

Org Number: 14100

Full Course Title: Automotive Powertrain Systems

Transcript Title: Automotive Powertrain Systems

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Web Page

Reason for Submission: New Course

Change Information:

Rationale: This course is one of three new courses that support the Powertrain Development Technician and Automotive Test Technician programs.

Proposed Start Semester: Fall 2015

Course Description: In this course, students will learn about the use of a chassis roll dynamometer for testing and validation of powertrain systems. Students will learn the principles of dynamometer operation including safety systems, road cycle testing, emissions testing, and durability testing. Students also gain practical experience in the laboratory, and develop and execute a test sequence for horsepower, emissions testing, and fuel system testing.

Course Credit Hours

Variable hours: No

Credits: 4

Lecture Hours: Instructor: 60 **Student:** 60

Lab: Instructor: 45 **Student:** 45

Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 105 **Student:** 105

Repeatable for Credit: NO

Grading Methods: Letter Grades

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Requisites

Prerequisite

ASV 131 minimum grade "C"

Prerequisite

ASV 132 minimum grade "C"

General Education

**Request Course Transfer
Proposed For:**

Student Learning Outcomes

1. Apply principles of testing and validation during an emission test cycle to determine vehicle emissions output during the test.

Assessment 1

Assessment Tool: Project

Assessment Date: Fall 2016

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% of students will score 75% or better.

Who will score and analyze the data: ASV faculty

Course Objectives

1. Apply an appropriate vehicle test cycle to be used for vehicle emissions testing.

Matched Outcomes

1. Apply principles of testing and validation during an emission test cycle to determine vehicle emissions output during the test.

New Resources for Course

Course Textbooks/Resources

Textbooks

Manuals

Periodicals

Software

Equipment/Facilities

Reviewer

Action

Date

Faculty Preparer:

Allen Day

Faculty Preparer

Apr 06, 2015

Department Chair/Area Director:

Allen Day

Recommend Approval

Apr 06, 2015

Dean:

Brandon Tucker

Recommend Approval

Apr 14, 2015

Vice President for Instruction:

Bill Abernethy

Conditional Approval

Apr 17, 2015