Washtenaw Community College Comprehensive Report

ASV 279 Automotive Dynamometer and Test
Conditional Approval
Effective Term: Fall 2015

Course Cover

Division: Advanced Technologies and Public Service Careers
Department: Automotive Services
Discipline: Auto Services
Course Number: 279
Org Number: 14100
Full Course Title: Automotive Dynamometer and Test
Transcript Title: Auto Dyno and Test
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 data acquisition methods used in modern automotive powertrain development. Students will learn the principles of strain gauge pressure sensors and Wheatstone bridge torque transducers. Students also gain practical experience in the laboratory, calibrating and validating the signals produced from a variety of automotive testing equipment. The students will develop and execute a test validation protocol on engine dynamometer stands.

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. Execute an engine test cycle while collecting data to determine sensor data validity.
   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. Demonstrate a procedure for determining sensor data validity.
   Matched Outcomes
   1. Execute an engine test cycle while collecting data to determine sensor data validity.

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*