

Washtenaw Community College Comprehensive Report

ASV 134 Automotive Transmissions Effective Term: Winter 2020

Course Cover

Division: Advanced Technologies and Public Service Careers
Department: Transportation Technologies
Discipline: Auto Services (new)
Course Number: 134
Org Number: 14100
Full Course Title: Automotive Transmissions
Transcript Title: Automotive Transmissions
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission:
Change Information:

Consultation with all departments affected by this course is required.

Rationale: Based on assessment results to improve student success rate.

Proposed Start Semester: Winter 2020

Course Description: In this course, students will learn the theory and operation of automatic and manual drivetrain systems. Topics include the basic diagnosis and repair of automatic transmissions and major drivetrain components. Students will be introduced to 4-wheel drive systems. Upon successful completion, students will be able to service automatic transmission components as well as diagnose and replace manual drivetrain components. The focus of this course allows students to gain practical experience in the laboratory.

Course Credit Hours

Variable hours: No

Credits: 4

Lecture Hours: Instructor: 45 **Student:** 45

Lab: Instructor: 60 **Student:** 60

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

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

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

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 minimum grade "C"

ASV130

General Education

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Recognize, diagnose and repair a basic automatic transmission.

Assessment 1

Assessment Tool: Departmental exam

Assessment Date: Fall 2021

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students

How the assessment will be scored: Common departmental exam will be scored using an answer sheet.

Standard of success to be used for this assessment: 70% of the students will score an overall average of 70% or higher.

Who will score and analyze the data: Departmental faculty

Assessment 2

Assessment Tool: Skills checklist

Assessment Date: Fall 2021

Assessment Cycle: Every Three Years

Course section(s)/other population: All section

Number students to be assessed: All students

How the assessment will be scored: The skills checklist will be scored using the departmentally-developed rubric

Standard of success to be used for this assessment: 70% of the students will score an overall average of 70% or higher

Who will score and analyze the data: Departmental faculty

2. Recognize, diagnose and repair a basic manual transmission.

Assessment 1

Assessment Tool: Departmental exam

Assessment Date: Fall 2021

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students

How the assessment will be scored: Common departmental exam will be scored using an answer sheet.

Standard of success to be used for this assessment: 70% of the students will score an overall average of 70% or higher.

Who will score and analyze the data: Departmental faculty

Assessment 2

Assessment Tool: Skills checklist

Assessment Date: Fall 2021

Assessment Cycle: Every Three Years

Course section(s)/other population: All section

Number students to be assessed: All students

How the assessment will be scored: The skills checklist will be scored using the departmentally-developed rubric

Standard of success to be used for this assessment: 70% of the students will score an overall average of 70% or higher

Who will score and analyze the data: Departmental faculty

Course Objectives

1. Identify components of an automatic transmission.
2. Recognize, diagnose and repair or replace pumps and clutches.
3. Diagnose and remove an automatic transmission.
4. Repair and reinstall an automatic transmission.
5. Identify components of a manual transmission.
6. Recognize, diagnose and repair or replace U-joints.
7. Recognize, diagnose and repair or replace drive axle including ring and pinion as needed.
8. Recognize, diagnose and repair or replace rear axle differential.
9. Recognize, diagnose and repair or replace transfer cases.
10. Recognize, diagnose and repair or replace transmission shift solenoids as needed.

New Resources for Course

Course Textbooks/Resources

Textbooks

Gills, Tim. *Automotive Service*, 4 ed. Delmar Publishing, 2011, ISBN: 97811111-2861.

Manuals

Periodicals

Software

Equipment/Facilities

Level III classroom

Computer workstations/lab

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Thomas Hemsteger</i>	<i>Faculty Preparer</i>	<i>Sep 10, 2019</i>
Department Chair/Area Director: <i>Justin Morningstar</i>	<i>Recommend Approval</i>	<i>Sep 10, 2019</i>
Dean: <i>Brandon Tucker</i>	<i>Recommend Approval</i>	<i>Sep 10, 2019</i>
Curriculum Committee Chair: <i>Lisa Veasey</i>	<i>Recommend Approval</i>	<i>Sep 10, 2019</i>
Assessment Committee Chair: <i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>Sep 10, 2019</i>
Vice President for Instruction: <i>Kimberly Hurns</i>	<i>Approve</i>	<i>Sep 10, 2019</i>