Washtenaw Community College Comprehensive Report

ATT 130 Automotive Service
Effective Term: Fall 2025

Course Cover

College: Advanced Technologies and Public Service Careers
Division: Advanced Technologies and Public Service Careers
Department: Transportation Technologies
Discipline: Automotive & Transportation Tech (new)
Course Number: 130
Org Number: 14100
Full Course Title: Automotive Service
Transcript Title: Automotive Service
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission: Course Change
Change Information:
Consultation with all departments affected by this course is required.
Rationale: Update the course for the new discipline.
Proposed Start Semester: Fall 2024
Course Description: In this course, students will learn basic shop safety and accepted shop practices in the transportation industry. In addition to basic maintenance, students will learn about fluids and lubrication services as well as cooling and exhaust system repairs. Students will also be introduced to basic steering, suspension, and brake repairs in the lab. This course was previously ASV 130.

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

Reduced Reading/Writing Scores

College-Level Math

Requisites

Prerequisite
Change levels to reading level 5, writing level 3

General Education

Degree Attributes

Statewide articulation approved

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Recognize and apply general shop rules, procedures and safety standards.
   Assessment 1
   Assessment Tool: Outcome-related exam questions.
   Assessment Date: Winter 2027
   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: Answer key
   Standard of success to be used for this assessment: 70% of the students will score 70% or higher on their first attempt.
   Who will score and analyze the data: Departmental faculty

2. Identify the proper use of various shop tools.
   Assessment 1
   Assessment Tool: Outcome-related exam questions.
   Assessment Date: Winter 2027
   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: Answer key
   Standard of success to be used for this assessment: 70% of the students will score 70% or higher.
   Who will score and analyze the data: Departmental faculty

3. Perform all vehicle fluid services.
   Assessment 1
   Assessment Tool: Outcome related lab skills sheet
   Assessment Date: Winter 2027
   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: Departmentally-developed rubric
   Standard of success to be used for this assessment: 70% of the students will score 70% or higher.
   Who will score and analyze the data: Departmental faculty

4. Perform basic mechanical repairs.
   Assessment 1
   Assessment Tool: Outcome-related lab skills sheet
   Assessment Date: Winter 2027
   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: Departmentally-developed rubric
   Standard of success to be used for this assessment: 70% of the students will score 70% or higher.
   Who will score and analyze the data: Departmental faculty

Course Objectives

1. Identify general shop rules and procedures.
2. Complete online safety training in Blackboard.
3. Identify and interpret vehicle identification numbers.
4. Find and utilize service information: Mitchell On-Demand and All Data.
5. Demonstrate the proper use of a two-post lift.
6. Demonstrate proper usage of floor jacks.
7. Identify various shop tools: hand tools and power tools.
8. Recognize the various purposes of threaded fasteners: Standard and Metric.
9. Identify and demonstrate the use of tap-and-die sets.
10. Recognize tire construction: steel-belted, low-profile, bias-ply and tubeless.
11. Interpret tire sidewall markings: Passenger/light truck, normal width in millimeters, aspect ratio, construction, rim diameter, load index, and speed rating.
12. Demonstrate removal and replacement of a tire and flat repair.
13. Identify proper tire inflation per vehicle.
14. Recognize low-pressure warnings: reset sensors, tread-wear, traction and temperature.
15. Demonstrate how to balance and rotate a wheel and tire.
16. Identify tread wear.
17. Demonstrate how to check vehicle fluids.
18. Demonstrate how to add fluids to the vehicle when needed.
19. Recognize the importance of transmission fluid replacement.
20. Demonstrate proper oil change procedures.
21. Identify fluid leaks.
22. Follow proper disposal of vehicle fluids and parts.
23. Perform lubrication techniques per vehicle specifications.
24. Recognize the importance of vehicle inspection.
25. Discuss the significance of ASE certifications as they apply to automotive mechanics.
26. Perform fluid change on a rear differential.
27. Identify the function of the cooling system.
28. Describe construction of major cooling system components.
29. Demonstrate proper safety procedures when working with cooling systems.
30. Recognize parts of an exhaust system.
31. Demonstrate exhaust system repairs.
32. Use and interpret vehicle identification numbers for the purpose of completing a repair order.

New Resources for Course

Course Textbooks/Resources

Textbooks

Kirk VanGelder. *Fundamentals of Automotive Technology 2nd Ed Access Card* , 2 ed. Jones and Bartlett Learning, 2017, ISBN: 9781284119558.

Manuals

Periodicals

Software

Equipment/Facilities

Level III classroom

Computer workstations/lab

Data projector/computer

Reviewer	Action	Date
Faculty Preparer:		
Shawn Deron	*Faculty Preparer*	*Mar 27, 2024*

Department Chair/Area Director:		
Rocky Roberts	*Recommend Approval*	*Mar 27, 2024*
Dean:		
Eva Samulski	*Recommend Approval*	*Apr 03, 2024*
Curriculum Committee Chair:		
Randy Van Wagnen	*Recommend Approval*	*Mar 20, 2025*
Assessment Committee Chair:		
Jessica Hale	*Recommend Approval*	*Mar 20, 2025*
Vice President for Instruction:		
Brandon Tucker	*Approve*	*Mar 21, 2025*

Washtenaw Community College Comprehensive Report

ASV 130 Automotive Maintenance
Effective Term: Fall 2019

Course Cover

Division: Advanced Technologies and Public Service Careers
Department: Transportation Technologies
Discipline: Auto Services (new)
Course Number: 130
Org Number: 14100
Full Course Title: Automotive Maintenance
Transcript Title: Automotive Maintenance
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: Reading, Writing level needs to be updated to meet the needs of incoming students. Course last assessed in SP/SU 2016.
Proposed Start Semester: Winter 2019
Course Description: In this course, students will learn basic shop safety and accepted shop practices. In addition to basic maintenance, students will learn about fluids and lubrication services as well as cooling and exhaust system repairs. Students will also be introduced to steering, suspension, and brake repairs in the lab.

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

Reduced Reading/Writing Scores

College-Level Math

Requisites

Prerequisite
Change levels to reading level 5, writing level 3

General Education

Degree Attributes

Statewide articulation approved

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Recognize and apply general shop rules, procedures and safety standards.
   Assessment 1
   Assessment Tool: Mastery questions from common departmental midterm exam
   Assessment Date: Fall 2019
   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

2. Identify and properly use various shop tools.
   Assessment 1
   Assessment Tool: Mastery questions from common departmental midterm exam
   Assessment Date: Fall 2019
   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

3. Perform all vehicle fluid services.
   Assessment 1
   Assessment Tool: Lab skills sheet
   Assessment Date: Fall 2019
   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: Fluid lubrication service skills lab sheet 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

4. Perform basic mechanical repairs.
   Assessment 1
   Assessment Tool: Lab skills sheet
   Assessment Date: Fall 2019
   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: Fluid lubrication service skills lab sheet 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 and follow general shop rules and procedures.
2. Complete online safety training in Blackboard.
3. Identify and interpret vehicle identification numbers.
4. Find and utilize service information: Mitchell On-Demand and All Data.
5. Demonstrate the proper use of a 2-post lift.
6. Demonstrate proper usage of floor jacks.
7. Identify various shop tools: hand tools and power tools.
8. Recognize the various purposes of threaded fasteners: Standard and Metric.
9. Identify and demonstrate the use of tap-and-die sets.
10. Recognize tire construction: Steel-belted, Low-profile, Bias-ply and Tubeless.
11. Interpret tire sidewall markings: Passenger/light truck, normal width in millimeters, aspect ratio, construction, rim diameter, load index, and speed rating.
12. Demonstrate removal and replacement of a tire and flat repair.
13. Identify proper tire inflation per vehicle.
14. Recognize low-pressure warnings: reset sensors, tread-wear, traction and temperature.
15. Demonstrate how to balance and rotate a wheel and tire.
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17. Demonstrate how to check vehicle fluids.
18. Demonstrate how to add fluids to the vehicle when needed.
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Reviewer	Action	Date
Faculty Preparer:		
Justin Morningstar	*Faculty Preparer*	*Sep 24, 2019*
Department Chair/Area Director:		
Justin Morningstar	*Recommend Approval*	*Sep 24, 2019*
Dean:		
Brandon Tucker	*Recommend Approval*	*Sep 24, 2019*
Curriculum Committee Chair:		
Lisa Veasey	*Recommend Approval*	*Sep 24, 2019*
Assessment Committee Chair:		
Shawn Deron	*Recommend Approval*	*Sep 24, 2019*
Vice President for Instruction:		
Kimberly Hurns	*Approve*	*Sep 24, 2019*