

## Washtenaw Community College Comprehensive Report

### ASV 254 Suspension and Steering Effective Term: Spring/Summer 2018

#### Course Cover

**Division:** Advanced Technologies and Public Service Careers

**Department:** Automotive Services

**Discipline:** Auto Services

**Course Number:** 254

**Org Number:** 14100

**Full Course Title:** Suspension and Steering

**Transcript Title:** Suspension and Steering

**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.**

**Outcomes/Assessment**

**Objectives/Evaluation**

**Rationale:** Break down objectives with specific descriptions.

**Proposed Start Semester:** Spring/Summer 2018

**Course Description:** In this course, students learn the theory and execution of automotive suspension and steering system diagnosis and repair. Students will apply proper techniques in performing 4-wheel alignments as well as major suspension and steering component replacement. This course was previously ASV 244.

#### Course Credit Hours

**Variable hours:** No

**Credits:** 2

**Lecture Hours: Instructor:** 30 **Student:** 30

**The following Lab fields are not divisible by 15: Student Min, Instructor Min**

**Lab: Instructor:** 22.5 **Student:** 22.5

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

**Total Contact Hours: Instructor:** 52.5 **Student:** 52.5

**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**

ASV 130 minimum grade "C"

## General Education

### Request Course Transfer

Proposed For:

### Student Learning Outcomes

1. Evaluate steering and suspension system components for wear and damage.

#### **Assessment 1**

Assessment Tool: Written Exam

Assessment Date: Winter 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: Answer key

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

Who will score and analyze the data: Departmental faculty

#### **Assessment 2**

Assessment Tool: Practical Exam

Assessment Date: Winter 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: Departmentally-developed rubric

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

Who will score and analyze the data: Departmental faculty

2. Remove and install steering and suspension system components.

#### **Assessment 1**

Assessment Tool: Lab assignment sheets

Assessment Date: Winter 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: Skills checklist

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

Who will score and analyze the data: Departmental faculty

3. Perform vehicle pre-alignment inspection.

#### **Assessment 1**

Assessment Tool: Practical Exam

Assessment Date: Winter 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: Departmentally-developed rubric

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

Who will score and analyze the data: Departmental faculty

4. Perform vehicle alignments procedure.

#### **Assessment 1**

Assessment Tool: Practical Exam

Assessment Date: Winter 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: Departmentally-developed rubric

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

Who will score and analyze the data: Departmental faculty

### Course Objectives

1. Recognize and apply shop safety practices.
2. Recognize proper inspection, diagnosing and repair of steering components.
3. Perform proper inspection, diagnosis and replacement of steering components.
4. Perform proper inspection and diagnosis of gear boxes, steering racks and pumps.
5. Replace gear boxes, steering racks and pumps as needed.
6. Perform 4-wheel alignments on vehicles using proper procedures and equipment.
7. Recognize proper diagnosis of vehicle wander, drift, pull steering concerns.
8. Recognize proper inspection of tire wear patterns.
9. Perform proper diagnosis of tire and wheel vibration, shimmy and noise.
10. Measure proper wheel, tire, axle flange and hub run out.
11. Recognize proper inspection, diagnosis and repair of suspension components.
12. Perform proper inspection, diagnosis and replacement of suspension components.

### New Resources for Course

#### Course Textbooks/Resources

Textbooks

Manuals

Periodicals

Software

#### Equipment/Facilities

Level III classroom

Computer workstations/lab

| <u>Reviewer</u>   | <u>Action</u>             | <u>Date</u>         |
|---|---------------------------|---------------------|
| <b>Faculty Preparer:</b><br><i>Thomas Hemsteger</i>                 | <i>Faculty Preparer</i>   | <i>Jun 27, 2017</i> |
| <b>Department Chair/Area Director:</b><br><i>Justin Morningstar</i> | <i>Recommend Approval</i> | <i>Aug 04, 2017</i> |
| <b>Dean:</b><br><i>Brandon Tucker</i>                               | <i>Recommend Approval</i> | <i>Aug 20, 2017</i> |
| <b>Curriculum Committee Chair:</b><br><i>Lisa Veasey</i>            | <i>Recommend Approval</i> | <i>Nov 16, 2017</i> |
| <b>Assessment Committee Chair:</b><br><i>Michelle Garey</i>         | <i>Recommend Approval</i> | <i>Nov 27, 2017</i> |
| <b>Vice President for Instruction:</b><br><i>Kimberly Hurns</i>     | <i>Approve</i>            | <i>Dec 02, 2017</i> |