



**Course Information**

<b>Course Title</b>	Automotive Suspension and Steering Systems
<b>Course Prefix, Num. and Title</b>	AUMT 1316
<b>Division</b>	Vocational Science
<b>Department</b>	Automotive Technology
<b>Course Type</b>	WECM Course
<b>Course Catalog Description</b>	Diagnosis and repair of automotive suspension and steering systems including electronically controlled systems. Includes component repair, alignment procedures and tire and wheel service. May be taught manufacturer specific. <b>(Capstone Course)</b>
<b>Pre-Requisites</b>	Credit for AUMT 1301
<b>Co-Requisites</b>	AUMT 1345

**Semester Credit Hours**

<b>Total Semester Credit Hours (SCH): Lecture Hours:</b>	3:2:4
<b>Lab/Other Hours</b>	
<b>Equated Pay Hours</b>	4
<b>Lab/Other Hours Breakdown: Lab Hours</b>	4
<b>Lab/Other Hours Breakdown: Clinical Hours</b>	Enter Clinical Hours Here.
<b>Lab/Other Hours Breakdown: Practicum Hours</b>	Enter Practicum Hours Here.
<b>Other Hours Breakdown</b>	List Total Lab/Other Hours Here.

**Approval Signatures**

<b>Title</b>	<b>Signature</b>	<b>Date</b>
<b>Prepared by:</b>		
<b>Department Head:</b>		
<b>Division Chair:</b>		
<b>Dean/VPI:</b>		
<b>Approved by CIR:</b>		

## Additional Course Information

**Topical Outline:** Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, and clinical or other non-lecture instruction).

Chassis design, Materials, Fasteners, and Safety

Tire and Wheels, Tire and Wheel Service

Wheel Bearing Service

Steering System Components and Operation, Steering System Diagnosis and Service

Suspension System Components and Operation, Suspension System Diagnosis and Service

Wheel Alignment Principles, Alignment Diagnosis and Service

Vibration and Noise Diagnosis and Correction

### Course Learning Outcomes:

**Learning Outcomes – Upon successful completion of this course, students will:**

1. Utilize appropriate safety procedures.
2. Explain operations of suspension and steering systems.
3. Diagnose and repair system components including electronically controlled systems.
4. Perform 4-wheel alignment procedures.
5. Perform tire service and repair.

#### Methods of Assessment:

1. Quizzes and assignments Completion of priority 1, 2, and 3 items on the ASE task list, job sheets.
2. Quizzes and assignments Completion of priority 1, 2, and 3 items on the ASE task list, job sheets.
3. Quizzes and assignments Completion of priority 1, 2, and 3 items on the ASE task list, job sheets.
4. Quizzes and assignments Completion of priority 1, 2, and 3 items on the ASE task list, job sheets.
5. Quizzes and assignments Completion of priority 1, 2, and 3 items on the ASE task list, job sheets.

### Required text(s), optional text(s) and/or materials to be supplied by the student:

CDX Online e Textbook. & Fundamentals of Automotive Technology CDX Automotive Jones & Bartlett Learning textbook.

Complete set of tools in compliance with the tool list.

### Suggested Course Maximum:

24

### List any specific or physical requirements beyond a typical classroom required to teach the course.

Complete auto shop lab with all the tools required by ASE to meet the standards for Automotive Suspension and Steering Systems.

**Course Requirements/Grading System:** Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

90%to 100% =A  
80%to 89% =B  
70%to79% =C  
60%to 69% =D  
Below60% =F

The grade is based on the percentage basis between lecture and lab.

Quizzes and assignments will count 30% of the course grade. At the end of the course a final exam will be given that will count 10% of the course grade. The auto shop lab grade will count 60% of the course grade. Lab work will be evaluated on attendance, percentage completion of priority 1,2, and 3 items on the ASE task list, job sheets, having the required tools to perform lab work, cleanliness, and attitude.

### Curriculum Checklist:

- Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.
- Administrative WCJC Core Course.** Attach the Core Curriculum Review Forms
  - Critical Thinking
  - Communication
  - Empirical & Quantitative Skills
  - Teamwork
  - Social Responsibility
  - Personal Responsibility
- WECM Course** -If needed, revise the Program SCANS Matrix and Competencies Checklist