

## Master Syllabus

### AUT 1116 - Automotive Steering & Suspension Systems

**Division:** Science, Mathematics and Engineering

**Department:** Automotive Technology

**Credit Hour Total:** 3.0

**Lecture Hrs:** 1.4 **Lab Hrs:** 4.8

**Date Revised:** May 2016

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#### Course Description:

Steering system diagnosis and service including front and rear suspension components, wheel and tire and front and rear wheel alignment. Basic hand tools are required. One classroom, six lab hours per week.

#### General Education Outcomes:

- Critical Thinking/Problem Solving Competency

#### Course Outcomes:

##### Four-wheel alignment

Perform an accurate four-wheel alignment.

**Assessment Method:** Performance appraisals  
**Performance Criteria:**

Student will receive 3 out of 4 on a 0-4 rubric evaluation

##### Front and rear suspension

Identify the various front and rear suspension system components.

**Assessment Method:** Locally developed exams  
**Performance Criteria:**

70% of the students will pass with a 70% on a written exam

##### Wheel balancing

Perform both static and dynamic type wheel balancing on a variety of wheels and tires.

**Assessment Method:** Performance appraisals  
**Performance Criteria:**

3 out of 4 to pass on a rubric evaluation of the activity

##### Steering systems

Pressure test a power steering system and diagnose steering problems.

**Assessment Method:** Performance appraisals  
**Performance Criteria:**

3 out of 4 on a rubric evaluation of the activity

##### Four-wheel alignment equipment

Demonstrate the ability to use the latest computerized four-wheel alignment equipment.

**Assessment Method:** Performance appraisals  
**Performance Criteria:**

3 out of 4 on a rubric evaluation of the activity

#### Outline:

Identify suspension components and operation. Demonstrate diagnostic procedures for determining suspension problems. Align front and rear suspensions of a vehicle. Identify alignment problems on driveability. Identify tire wear and construction. Understand the operation of steering systems. Demonstrate diagnostic methods for determining steering problems.