

## Master Syllabus

### **AUT 1142 - Automotive Manual Transmission & Driveline**

**Division:** Science, Mathematics and Engineering

**Department:** Automotive Technology

**Credit Hour Total:** 3.0

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

**Date Revised:** October 2013

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#### **Course Description:**

Theory and operation of clutch, manual transmission and transaxle, rear axle, limited slip differential, drive shaft, universal joint, four-wheel drive/all-wheel drive, diagnosis and repair. Basic hand tools required. One classroom, six lab hours per week.

#### **General Education Outcomes:**

- Critical Thinking/Problem Solving Competency
- Information Literacy Competency

#### **Course Outcomes:**

##### **Axles and Differentials**

Identify components and proper procedures for axle and differential service and repair.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% correct responses on exam

##### **Driveshafts and Universal Joints**

Perform procedures for driveshaft and universal joint service and repair.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% correct responses on exam

##### **Four Wheel Drive and All Wheel Drive**

Perform service procedures for four wheel drive and all wheel drive service and repair.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% correct responses on exam

##### **Clutches**

Identify components and proper procedures for clutch service and repair.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Score 70% correct on written exam

**Assessment Method:** Performance appraisals

**Performance Criteria:** Score at least 2 on a 4-point rubric

##### **Manual Transmissions and Transaxles**

Identify components and proper procedures for transmission and transaxle service and repair.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% correct responses on a written exam

#### **Outline:**

Clutches  
Manual Transmissions/Transaxles  
Differentials  
Axles  
Driveshafts  
Universal Joints  
Four Wheel Drive/All Wheel Drive