**Course Title - Automotive Brake Systems**

**Course Prefix and Number - AUMT 1310**

**Department - Automotive Technology**

**Division - Vocational Science**

**Course Type:** (check one)
- ☑ Academic WCJC Core Course
- ☑ WECM course (This course is a Special Topics or Unique Needs Course: Y ☑ or N ☑)

**Semester Credit Hours # : Lecture hours#: Lab/other hours #**

3:2:4

**Equate Pay hours for course - 4**

**Course Catalog Description** - Operation and repair of drum/disc type brake systems. Topics include brake theory, diagnosis, and repair of power, manual, anti-lock brake systems, and parking brakes. May be taught with manufacturer specific instructions.

**Prerequisites/Co-requisites** - Credit for or concurrent enrollment in AUMT 1301

Co-requisites: AUMT 2413, AUMT 2425 and AUMT 2434

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**List Lab/Other Hours**

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<tr>
<th>Lab Hours</th>
<th>4</th>
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<tr>
<td>Clinical Hours</td>
<td></td>
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<tr>
<td>Practicum Hours</td>
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<td>Other (list)</td>
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**Prepared by Curtis Cline**

**Reviewed by department head Curtis Cline**

**Accuracy verified by Division Chair Timothy Guinn**

**Approved by Dean or Vice President of Instruction**

**Date 1/12/2015**

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Administrative-Master Syllabus
Revised April 2013
I. Topical Outline – Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, clinical or other non-lecture instruction):

The instructor will organize the course in such a manner that all areas of the course objectives will be covered in a balanced manner. It is within the prerogative of the instructor to assign exact amounts of time to each of the objectives which are:

- Brake System Fundamentals
- Brake service tools and Equipment
- Master Cylinders and Brake Fluid, Master Cylinder and Brake Fluid Service
- Power Brake Systems, Power Brake Systems Service
- Disc Brake Systems, Disc Brake Systems Service
- Drum Brakes, Drum Brake Service
- Parking Brakes, Parking Brake Service
- Antilock Brake System Principles, General ABS Service

II. Course Learning Outcomes

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>Method of Assessment</th>
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<td>Upon successful completion of this course, students will:</td>
<td>1. Quizzes, job sheets, final exam, homework assignments.</td>
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<tr>
<td>1. Utilize appropriate safety procedures.</td>
<td>2. Quizzes, job sheets, final exam, homework assignments.</td>
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<tr>
<td>2. Explain operation of modern brake systems</td>
<td>3. Quizzes, job sheets, final exam, homework assignments.</td>
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<tr>
<td>3. Diagnose and repair hydraulic systems, drum/disc brake systems, and anti-lock brake systems.</td>
<td>4. Quizzes, job sheets, final exam, homework assignments.</td>
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III. Required Text(s), Optional Text(s) and/or Materials to be Supplied by Student.

CDX online eTextbook & *Fundamentals of Automotive Technology* CDX Automotive Jones & Bartlett Learning textbook. Complete set of tools in compliance with the tool list.

IV. Suggested Course Maximum - 24

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

Complete auto shop lab with all the tools required by NATEF to meet the standards for Automotive Brake System Certification.

VI. 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% to 79% = C
60% to 69% = D
Below 60% = 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.

VII. Curriculum Checklist

☐ - Academic General Education Course (from ACGM – but not in WCJC Core)
   No additional documentation needed

☐ - Academic WCJC Core Course
   Attach the Core Curriculum Checklist, including the following:
   • Basic Intellectual Competencies
   • Perspectives
   • Exemplary Educational Objectives

☒ - WECM Courses
   If needed, revise the Program SCANS Matrix & Competencies Checklist.