



HLC Accreditation Evidence

Title: Auto-Brakes Syllabus

Office of Origin: Vice President

**BARTON COMMUNITY COLLEGE
COURSE SYLLABUS**

I. GENERAL COURSE INFORMATION

<u>Course Number:</u>	AUTO 1102
<u>Course Title:</u>	Brakes I
<u>Credit Hours:</u>	3
<u>Prerequisite:</u>	None
<u>Division/Discipline:</u>	Workforce Training and Economic Development/Automotive Technology
<u>Course Description:</u>	In this course students explore theory and perform analysis/service to the brake hydraulic, disc, drum and parking brake system of the automobile.

II. INSTRUCTOR INFORMATION

III. COLLEGE POLICIES

Students and faculty of Barton Community College constitute a special community engaged in the process of education. The College assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom.

Plagiarism on any academic endeavors at Barton Community College will not be tolerated. The student is responsible for learning the rules of, and avoiding instances of, intentional or unintentional plagiarism. Information about academic integrity is located in the Student Handbook.

The college reserves the right to suspend a student for conduct that is determined to be detrimental to the College educational endeavors as outlined in the College Catalog, Student Handbook, and College Policy & Procedure Manual. (Most up-to-date documents are available on the College webpage.)

Any student seeking an accommodation under the provisions of the Americans with Disability Act (ADA) is to notify Student Support Services via email at disabilityservices@bartonccc.edu.

IV. COURSE AS VIEWED IN THE TOTAL CURRICULUM

Brakes I is a Kansas aligned course and a prerequisite to Brakes II.

V. ASSESSMENT OF STUDENT LEARNING

Barton Community College is committed to the assessment of student learning and to quality education. Assessment activities provide a means to develop an understanding of how students learn, what they know, and what they can do with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

Course Outcomes, Competencies, and Supplemental Competencies:

A. Evaluate brake performance and determine needed service.

Linked External Standards: NATEF 5.A.1, 5.A.3, 5.A.4

1. Complete service work orders.
2. Determine brake system concerns and necessary actions.

B. Inspect and repair brake hydraulic systems.

Linked External Standards: NATEF 5.B.1, 5.B.2, 5.B.3, 5.B.4, 5.B.5, 5.B.6, 5.B.7, 5.B.8, 5.B.9, 5.B.10, 5.B.11, 5.B.12, 5.B.13

1. Determine appropriate system pressure tests utilizing service specifications.
2. Diagnose poor stopping, pulling, or dragging concerns caused by malfunctions in the hydraulic system.
3. Determine how to inspect, fabricate and/or replace brake lines and hoses.

C. Inspect and repair disc brake systems.

Linked External Standards: NATEF 5.D.4, 5.D.5, 5.D.6, 5.D.7, 5.D.8, 5.D.11, 5.D.13, 5.F.1, 5.F.2, 5.F.3, 5.F.4, 5.F.5, 5.F.6, 5.F.6, 5.F.7, 5.F.8

1. Diagnose poor stopping, noise, vibration, pulling, grabbing, dragging or pedal pulsation concerns on disc brake vehicles.
2. Determine disc brake repair and replacement procedures.
3. Determine how to retract disc brake caliper pistons.
4. Diagnose wheel bearing noise, wheel shimmy and vibration concerns.
5. Determine how to remove, inspect and replace bearing and hub assemblies.

D. Inspect and repair drum brake systems.

Linked External Standards: NATEF 5.C.2, 5.C.3, 5.C.4, 5.C.5, 5.C.6, 5.C.7

1. Remove, clean and refinish brake drums in accordance with published service guidelines and specifications.
2. Demonstrate correct drum brake repair and replacement procedures.

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS

VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS

VIII. REFERENCES

IX. METHODS OF INSTRUCTION AND EVALUATION

X. ATTENDANCE REQUIREMENTS

XI. COURSE OUTLINE