Wharton County Junior College

Administrative Master Syllabus

Course Information

Course Title	Automotive Brake Systems
Course Prefix, Num. and Title	AUMT 1310
Division	Vocational Science
Department	Automotive Technology
Course Type	WECM Course
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.
Pre-Requisites	Credit for or concurrent enrollment on AUMT 1301
Co-Requisites	AUMT 2413, AUMT 2425, and AUMT 2434.

Semester Credit Hours

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

Approval Signatures

Title	Signature	Date
Prepared by:	Steve Witzkoski — Digitally signed by Steve Witzkoski DN: cn=Steve Witzkoski, o=Wharton County Junior College, ou=Automotive Technology, email=witzkoskis@wcjc.edu, c=US Date: 2020.08.12 09:13:04 -05'00'	08/12/2020
Department Head:	Steve Witzkoski — Digitally signed by Steve Witzkoski DN: cn=Steve Witzkoski, o=Wharton County Junior College, ou=Automotive Technology, email=witzkoskis@wcjc.edu, c=US Date: 2020.08.12 09:13:16 -05'00'	08/12/2020
Division Chair:	Timothy Guin — Digitally signed by Timothy Guin DN: cn=Timothy Guin, o=Division Chair, ou=VOCS, email=guint@wcjc.edu, c=US Date: 2020.08.14 09:42:42 -05'00'	08/12/2020
Dean/VPI:	Paul J. Quinn — Digitally signed by Paul J. Quinn Date: 2020.08.14 10:25:37 -05'00'	
Approved by CIR:	Paul J. Quinn — Digitally signed by Paul J. Quinn Date: 2020.08.14 10:25:52 -05'00'	

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).

Brake System Fundamentals
Brake service tools and Equipment
Master Cylinders and Brake Fluid, Master Cylinder and Brake Fluid Service
Hydraulic Lines, Valves, and Switches, Hydraulic Lines, Valves, and Switches 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

Course Learning Outcomes:

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

1. Utilize appropriate safety procedures.
2. Explain operation of modern brake systems
3. Diagnose and repair hydraulic systems, drum/disc brake systems, and anti-lock brake systems.
4. Machine drums and rotors with current industry standard equipment.

Methods of Assessment:

1. Quizzes, job sheets, final exam, homework assignments.
2. Quizzes, job sheets, final exam, homework assignments
3. Quizzes, job sheets, final exam, homework assignments
4. Quizzes, job sheets, final exam, homework assignments

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 Brake System Certification.

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