SYLLABUS

COURSE # AND TITLE AUTE 112 Brakes # OF CREDITS 5

CATALOG DESCRIPTION
A study of the theory and diagnostic procedures of disc and drum brake systems. Instruction on machining of discs, drums, and rebuilding of brake hydraulic components will be given. Safety is emphasized. Co-requisite AUTE 111

Semester Offered: Fall
Prerequisites:

Common Student Learning Outcomes
Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in…

Broad and Specialized Learning
Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

Critical Thinking
Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

Cultural and Civic Engagement
Students will act purposefully, reflectively, and ethically in diverse and complex environments.

Effective Communication
Students will exchange ideas and information with clarity in multiple contexts.

Information Literacy
Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

Integrating Technologies
Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

GENERAL LEARNING OBJECTIVES
1. To provide the student with the techniques and diagnostic procedures for assuring a safe and trouble free brake system on modern automobiles.
2. Completion of 100% of NATEF priority 1 tasks.
3. Completion of 85% of NATEF priority 2 tasks.
4. Completion of 75% of NATEF priority 1 tasks.

SPECIFIC LEARNING OUTCOMES
Upon successful completion of the course, the student will be able to…
1. Demonstrate the ability to safely service the automotive brake service.
2. Overhaul wheel cylinders.
3. Overhaul disc brake calipers.
4. Overhaul master cylinders.
5. Replace and repair brake lines and hoses.

6. Bleed a brake system.
7. Flush a brake system.
8. Balance a pressure differential switch.
9. Remove and replace brake shoes.
10. Remove and replace disc brake pads.
11. Adjust, service, and test parking brake system.
12. Machine drums and rotors to manufacturers' standards.
13. Replace parking brake cables.
14. Diagnose brake malfunctions such as squeak, low pedal, hard pedal, and spongy pedal.
15. Test and inspect brake components for leakage, wear and proper operation.
16. Perform the manufacturers' brake performance test.
17. Remove and replace master cylinder.
18. Remove and replace a hydraulic power boost unit.
19. Test an anti-lock brake system using manufacturers' approved processes.
20. Measure rotor parallelism.
21. Measure rotor run-out.
22. Torque wheel lug nuts to service manual specification.
23. Check and service brake fluid level utilizing the manufacturers' recommended process.

Syllabus developed by _____ Date: _____

Syllabus reviewed by _____ Date: _____

A current syllabus must be on file in the dean's office for every course being taught during a given semester.