

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: AUT 265

Credits: 3

Course Title: Automotive Braking Systems

Course Description: Presents operation, design, construction, repair, and servicing of braking system, including Anti-Lock Brake Systems (ABS). Explains uses of tools and test equipment, evaluation of test results, estimation of repair cost for power, standard, and disc brakes. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

General Course Purpose: This course is a requirement of the Automotive Technology Certificate program. Competent automotive technicians must have a thorough knowledge of assemblies, sub-assemblies, components of automotive braking systems, and possible braking system defects with respect to their cause and the effect upon automobile operation.

Course Prerequisites and Co-requisites:

None

Student Learning Outcomes:

Upon completing the course, the student will be able to

- a. Explain the purpose and operation of automotive braking systems;
- b. Differentiate possible braking system defects and their cause and effect upon automobile operation;
- c. Demonstrate trouble-shooting methods and tools and equipment used in braking systems tests; and
- d. Determine the extent of repairs and adjustments and parts necessary for correction.

Major Topics to Be Included:

- a. Brake pedal assembly
- b. Automotive brakes hydraulic system operation and service
- c. Disc brakes operation and service
- d. Drum brakes operation and service
- e. Power-assist brakes
- f. Parking brakes
- g. Computerized anti-lock brake systems
- h. Parking brake operation and service

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