

**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. 3 credits

General Course Purpose:

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:

Prerequisites: AUT 149 and AUT 197

Student Learning Outcomes:

Upon completing the course, the student will be able to

- Inspect, diagnose, and repair disc brake system faults
- Inspect, diagnose, and repair drum brake system faults
- Inspect, diagnose, and repair brake hydraulic faults
- Inspect, diagnose, and repair power brake system faults
- Apply a common diagnostic and testing strategy for ABS and ABS-Based systems

Major Topics to Be Included:

- Braking Principles and Theories
- Disc Brakes Inspection, Maintenance, Repair, and Diagnosis
- Drum Brakes Inspection, Maintenance, Repair and Diagnosis
- Parking Brake Systems Inspection, Maintenance, Repair, and Diagnosis
- Brake Hydraulics Diagnosis and repair
- Power Brake systems inspection, Repair, and Diagnosis
- ABS and ABS-Based Systems Diagnosis and Repair

Effective Date/Updated: January 19, 2023