

DISL 230-ON-HIGHWAY BRAKES 6 CREDITS

SYLLABUS

CATALOG DESCRIPTION

Theory and operation of air brake systems, hydraulic brake systems, retarders, and foundation brake components. Students will work on a variety of on-highway class 4 to 6 trucks. Safety will be strictly enforced. A grade of "C" or better must be earned to receive credit for this course.

Prerequisites: None

Semester Offered: Spring

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.

Course Learning Outcomes

1. To provide the student with the techniques and procedures to correctly inspect, diagnose, adjust, and repair medium and heavy duty (Class 8) Truck manual drive train and foundation brake components.

Specific Learning Objectives:

Upon successful completion of the course, the student will be able to...

1. Perform a complete brake inspection in accordance with FMVSS 121 and current updates.
2. Diagnose, adjust, test, repair or replace defective components in a parking/spring brake circuit.
3. Inspect, and repair/replace defective or worn foundation brake components, i.e. shoes, cylinders/chambers, springs.
4. Inspect, measure, and determine condition of brake drums and rotors per manufacturer's specifications and/or FMVSS 121.
5. Diagnose, adjust, test, repair or replace defective components in an air service brake circuit.
6. Perform a complete brake inspection in accordance with FMVSS 105 and current updates.
7. Diagnose, adjust, test, repair or replace defective components in a hydraulic parking brake circuit.
8. Inspect, and repair/replace defective or worn hydraulic brake components, i.e. shoes, cylinders, springs.
9. Inspect, measure, and determine condition of brake drums and rotors per manufacturer's specifications and/or FMVSS 105.
10. Diagnose, adjust, test, repair or replace defective components in a hydraulic service brake circuit.