



DEM203 Locomotive FRA

Credit Hours: 3

Description:

This course is the fourth in a series of four courses in Locomotive Mechanics. This course is designed to introduce the student to the Federal Railway Administration and Department of Transportation Code of Federal Regulations Title 49, Parts 209, 218, 229, 231, and 232.

Supplies:

Check with the instructor for details about any supplies that may be required.

Objectives:

1. List the Part 209 Railroad Safety Enforcement Procedures.
2. Identify the Part 218 Railroad Operating Procedures.
3. List the Part 229 Railroad Safety Standards, Parts A, B, and C.
4. Explain the Parts 231 & 232 Railroad Safety Appliances Review.
5. Define a Blue Signal.
6. Evaluate and classify locomotives according to FRA standards.

Content Outline and Competencies:

I. Part 209 Railroad Safety Enforcement Procedures

- A. List the Part 209 safety procedures.
- B. Explain Part 209 safety procedures.

II. Part 218 Railroad Operating Procedures

- A. Define "rolling equipment".
- B. Define "effective locking device".

III. Part 229 Railroad Safety Standards, Parts A, B, and C

- A. Identify proper safety rules from given scenarios.
- B. List minimum safety tolerances for coupler knuckles.
- C. List minimum safety tolerances for side bearings.
- D. List minimum safety tolerances for flat spots on wheels.
- E. Identify locomotive defects by sight.

IV. Parts 231 & 232 Railroad Safety Appliances Review

- A. Identify correct tolerances for handrails and steps.
- B. List required inspection times for locomotives.
- C. Define safety terms for brakes.
- D. List required brake pressures.

V. Blue Signals

- A. Define acceptable blue signals.
- B. List regulations for main track and other than main track.

VI. Locomotive Inspections

- A. List the steps in the daily locomotive inspections.
- B. Identify defects from given inspection scenarios.

Guidelines for Success:

Assessment Plan – Assessment is an integral part of the educational process at Washburn Tech and accurate feedback is an important tool in continuously improving the institution's technical programs. Students can expect to participate in assessment activities prior to entry into programs, within specific courses and following program completion for specific fields of study.

Grading Criteria:

- 90-100% A
- 80-89% B
- 70-79% C
- Below 70% Failing

- Labs Pass/Fail

Instruction includes 50% lecture and 50% laboratory exercises.

Attendance:

Classroom attendance is required. Class attendance requirement is 90% for most of the programs.

Disability:

The Americans with Disabilities Act (ADA) Office is responsible for assisting in arranging accommodations and for identifying resources at Washburn Institute of Technology for persons with disabilities. Qualified students with disabilities MUST self-identify by completing an application. In addition students must provide appropriate medical documentation to the ADA coordinator to be eligible for accommodations. New requests for accommodations should be submitted at least two months or more prior to the date the accommodations are needed. However, please contact the ADA office as soon as a need may arise. Depending on the accommodation request, four to eight weeks lead time may be needed for timely and effective provision of accommodations. The ADA Office coordinates and assists in arranging accommodations it deems appropriate for eligible students on a case-by-case basis.

If you are a student with a disability that may substantially limit your ability to participate in any of our classes and you believe that you will need accommodations, it is your responsibility to contact:

ADA Coordinator

Phone: 785-228-6356

Email: gloria.christian@washburn.edu

