

# RAILROAD ENGINEERING TECHNOLOGY, AS

**Program code:** RREN-AS

**Location:** Gateway

## Program Description

Railroad Engineering Technology will prepare students for employment in the railroad industry within a career path for maintaining and repairing railcars through a degree orientation in electromechanical equipment.

Graduates will be prepared for technical application exams commonly administered by railroad companies for entry-level maintenance of equipment positions. The program reflects current skills needed within job positions that require electromechanical knowledge and skills.

## Learning Outcomes

Upon successful completion of all program requirements, graduates should be able to:

1. Demonstrate and have an understanding of typical railroad rules and regulations, including changes that are a result of accidents and imposed by Homeland Security
2. Demonstrate a basic understanding of career opportunities within the railroad industry with an Electromechanical-oriented degree
3. Demonstrate a basic understanding of the operation of railcar electromechanical systems
4. Conduct entry-level troubleshooting and repairs of electromechanical systems on railcars
5. Be prepared to take an application exam on electromechanical skills for employment in the railroad industry

**Railroad Engineering Practicum Information:** Practicum experiences may be assigned during daytime, evening or weekend hours; assignments are subject to change based upon availability of practicum sites and numbers in groups; practicum sites could be within an hour radius of the college and may require a mandatory parking fee; students must make their own travel arrangements during the program. Practicum learning experiences are planned as an integral part of the railroad engineering technology courses, and are held at a variety of railroad settings, such as the Shoreline Trolley Museum/Branford Railway and the Railroad Museum of New England/Naugatuck Railroad. This program is offered at the Gateway Campus.

**Criminal Background Checks & Toxicology Screening:** Practicum sites may now require criminal background checks and/or toxicology screening (drugs/alcohol) be completed on any student who will be attending a practicum rotation at those sites. Students must follow instructions for obtaining a background and/or toxicology screening at the college if necessary. Students who are found guilty of having committed a felony/misdemeanor and/or are found to have a positive toxicology screen may be prevented from participating in practicum exercises. Those who cannot participate in a practicum at an assigned facility, may not be able to complete the objectives of the course and of the program. Specific situations are reviewed by college personnel.

## Degree Requirements

Code	Title	Credits
<b>General Education Courses</b>		
ENG 1010	Composition	3
Elective ARHX - Arts & Humanities Course		3-4
MATH 1002 or equivalent		
PHYS 1009	Fundamentals of Applied Physics (or higher)	4
ECON 1001	Principles of Macroeconomics	3
Elective ORAX - Oral Communication Course or Elective WRIX - Written Communication II Course		3
CCS 1001	College and Career Success	3
<b>Program Courses</b>		
CENT 1016	Computer Applications for Technology	3
CENT 1026	Computer Servicing	4
or CENT 2010	Computer Systems Software	
RRET 1003	Fundamentals of Electricity	4
CENT 1010	Electric Circuits for Technology	4
MECH 2034	Electromechanical Controls	4
RRET 1001	History of Railroading	3
RRET 1020	Railroad Rules, Regulations, Standards and Practices	3
RRET 2020	Safety in the Railroad Workplace	3
RRET 2030	Reading and Interpreting Railroad Diagrams	2
RRET 2040	Railroad Pneumatics and Hydraulic Controls	4
RRET 2042	Railroad HVAC Systems	4
RRET 2044	Railroad Electromechanical Troubleshooting	4
RRET 2095	Practicum in Passenger Railroad Technology	1
<b>Total Credits</b>		<b>62-63</b>

- Railroad Engineering Technology: Signaling and Communications, AS