

GRADUATE CERTIFICATE IN RAILROAD ENGINEERING, POST-BACCALAUREATE CERTIFICATE

The Railroad Engineering Certificate Program is a 12-credit hour certificate program housed in the Department of Engineering. The Program is designed to prepare students with an undergraduate degree in engineering (or related field) to succeed in a career in railroad engineering. Coursework includes material from civil, electrical, industrial, and mechanical engineering.

Specific Admission Requirements

An applicant for the certificate must be admitted as a graduate student and can then complete the certificate in non-degree status. Colorado residents can complete the certificate as guest (for credit) students. If a student decides to later pursue the MS in Engineering with a concentration in Railroad Engineering, the student must apply and be accepted to that degree program; credits completed toward the certificate can be applied toward the degree.

Student Learning Outcomes

Each student will be able to

- Demonstrate advanced understanding of the fundamental knowledge which serves as the basis for practice in railroad engineering.
- Apply that knowledge in the design and analysis of a system or process to meet specified needs.

Outcomes Assessment Activities

Within the Department's existing assessment structures, the performance of Certificate students in the specific courses will be evaluated separately from other students.

Specific Program Requirements

A student will receive a Railroad Engineering Certificate after completing the following courses with a grade of B or better.

Course	Title	Credits
EN 511	Structural Engineering	3
EN 531	Railroad Power Systems	3
EN 551	Fleet Management	3
EN 552	Vehicle Dynamics	3
Total Credits		12