

# RAILROAD TRANSPORTATION ENGINEERING (RTE)

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## RTE 294: Research Project

1-12 Credits/Maximum of 12

Supervised student activities on research projects identified on an individual or small-group basis.

## RTE 301: Railroad Industry Overview and Economic Regulation

3 Credits

This course explores the relationship between railroads and customers, competitors, and the political, regulatory, and economic environment.

**Prerequisite:** ECON 102; Concurrent: RTE 303

## RTE 302: Railroad Track Location, Construction and Maintenance

3 Credits

Principles of railroad track location, alignment, elements and safety regulations.

**Prerequisite:** C E 310 , C E 336; Concurrent: C E 335, C E 360

## RTE 303: Railroad Operation and Safety

3 Credits

Basics of rail operations, including the role of terminals and safety principles.

**Concurrent:** RTE 301

## RTE 305: Railroad Communications and Signals

3 Credits

Principles of the separation of trains, including signals, interlocking, and communications.

**Prerequisite:** PHYS 212 , CMPSC201 or CMPSC202; Concurrent: RTE 303

## RTE 402: Railroad Operations Practicum

3 Credits

Practicum (lectures, supervised field work, laboratories) exploring practical problems in rail operations and safety.

**Prerequisite:** RTE 303 , RTE 305

## RTE 403: Railroad Track Practicum

3 Credits

Practicum (lectures, labs, supervised field experiences) exploring the construction and repair of track.

**Prerequisite:** RTE 302 , C E 310; Concurrent: C E 333W, C E 335

## RTE 404: Railroad Mechanical Practicum

3 Credits

Practicum (lectures, labs, supervised field experiences) examining the repair of locomotives and cars.

**Prerequisite:** RTE 303 , PHYS 211 , PHYS 212 , E MCH213

## RTE 406: Railroad Capstone Project

4 Credits

Capstone project to integrate course knowledge in a team-based project.

**Prerequisite:** C E 333W , RTE 305 , RTE 402 , RTE 403 , RTE 404 , C E 332 , 7th semester standing

## RTE 495: Internship

1-18 Credits/Maximum of 18

Supervised off-campus, nongroup instruction including field experiences, practica, or internships. Written and oral critique of activity required.

## RTE 496: Independent Studies

1-18 Credits/Maximum of 18

Creative projects, including research and design, that are supervised on an individual basis and that fall outside the scope of formal courses.

## RTE 497: Special Topics

1-9 Credits/Maximum of 9

Formal courses given infrequently to explore, in depth, a comparatively narrow subject that may be topical or of special interest.