RAILROAD TRANSPORTATION ENGINEERING (RTE)

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.