### 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.