

Department: Civil Engineering

The University of Mississippi

Course Number: 581

Course Title: Transportation Engineering II

Designation: Graduate; Technical Elective – UG

Catalog Description: Advanced topics in transportation engineering and management with emphasis on intermodal facilities; physical design and traffic management; measures of system effectiveness and performance; environmental and social impacts; Intelligent Transportation System (ITS) technologies; applications of remote sensing and spatial technologies and GIS; economic evaluation of alternatives; computer modeling and simulation. (3)

Pre-Requisite: CE481 or consent of instructor

Professional Component:

(Highlight those apply)

- differential and integral calculus
- probability
- statistics
- chemistry
- calculus-based physics
- structure
- water resources and environmental engineering
- geotechnical engineering
- transportation and construction management
- laboratory experiment
- critically analyze and interpret data
- design
- professional practice issues
- professional licensure and continuing education

Outcomes:

(Highlight those apply)

- (a) an ability to apply knowledge of mathematics, science, and engineering
- (b) an ability to design and conduct experiments, as well as to analyze and interpret data
- (c) an ability to design a system, component, or process to meet desired needs
- (d) an ability to function on multi-disciplinary teams
- (e) an ability to identify, formulate, and solve engineering problems
- (f) an understanding of professional and ethical responsibility
- (g) an ability to communicate effectively
- (h) the broad education necessary to understand the impact of engineering solutions in a global and societal context
- (i) a recognition of the need for, and an ability to engage in life-long learning
- (j) a knowledge of contemporary issues
- (k) an ability to use the techniques, skills and modern engineering tools necessary for engineering practice

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