

Master of Science in Civil Engineering/PhD Engineering

Area of Emphasis – Transportation and Traffic Engineering

Course Requirements

BS in Civil Engineering or must take sequence of required undergraduate courses first.

Required for Degree: 32 credits total – 24 credits coursework, 6 credits thesis, 2 credits seminar.

Required Courses:

Course Number	Course Name	Credits
CE 581	Urban Transportation Planning	3
CE 582	Highway and Traffic Engineering	3
CE 691	Graduate Seminar (2 semesters, 1 credit each)	2
CE 599	Thesis – Major Advisor	6

Transportation Electives:

Course Number	Course Name	Credits
CE 548	Fuzzy Logic and Applications	3
CE 566	Pavement Design	3
CE 571	Sustainable Design and Construction	3
CE 576	Project Delivery Systems	3
CE 598	Decision-Making in Civil Infrastructure	3
CE 598	Design of Sustainable Transportation Systems & Policy	3
CE 598	Transportation Data Management & Analysis	3
CRP 543	Transportation Planning	3
ECON 300**	Intermediate Microeconomics	3
ECON 501	Microeconomics I #	3
ECON 504	Mathematical Tools & Economic Models #	3
ECON 508	Statistics & Intro to Econometrics #	3
ECON 509	Econometrics I #	3
ECON 544	Environmental Economics #	3
ECON 560	Public Economics #	3
GEOG 381**	Intro to GIS	4
GEOG 581	Fundamentals of GIS	3
GEOG 586	Applications of GIS	3
GEOG 587L	Spatial Analysis and Modeling	3
STAT 527	Advanced Data Analysis I	3
STAT 528	Advanced Data Analysis II	3

*Course allowed for graduate credit to students enrolled in graduate program.

**Available for graduate credit except for graduate majors in the department.

#Requires permission from the Economics Department to register.

Additional electives may be approved in consultation with your graduate advisor.

Note: Course offerings are subject to change each semester based on enrollment and instructor availability.

Revised September 2015