

MS in Civil and Environmental Engineering (Transportation Emphasis)

MS in Civil and Environmental Engineering (Transportation Emphasis) An MS degree is comprised of a minimum of 45 units of 400/500 level coursework. The following flowchart suggests courses consistent with a Transportation Emphasis within the CE/ENVE department. The flowchart contains department required and elective transportation courses and elective non-transportation courses within and outside the CE/ENVE Department. *For students on the **Comprehensive Exam option**, students need to complete the required 45 units while students on the thesis option need to complete 9 units towards their thesis.* It is important to note that courses need to be selected from the list below in consultation with academic advisor. Students may take a maximum of 2 units of CE 500 (Individual Study) to supplement their unit requirements.

	Fall	Winter	Spring
Select ALL courses in this grouping:			
M.S Department Requirements	CE 591 (1) - Graduate Seminar I	CE 592 (1) - Graduate Seminar II	CE 596 (1) - Comprehensive Exam OR CE 599 (9) ¹ - Master's Thesis
Required Core Analysis/Planning/Operation	CE 421 (4) – Traffic Engineering CE 523 (4) - Transportation System Planning	CE 526 (4) - Transportation Safety	CE 527 (4) – Sustainability Mobility
Required Core Design Courses	-	CE 422 (4) - Highway Geometrics and Design	-
Structural Design Electives - Select <u>at least 12 units of Transportation Electives</u>²:			
Other Transportation Electives	-	CE 525 (4) -Airport Planning Design	CE 529 (4) -Modeling and Simulation of Transportation
	-	CE 424 (4) - Public Transportation	CE 423 (4) -Intelligent Transportation Systems CE 425 (4) – Introduction to Railway Engineering
Optional Complementary Coursework:			
Non-CE Suggested Electives³	STAT 513 (4) - Applied Experimental Design and Regression Models		
	CRP 504 (4) - Sustainable Communities	-	-
	EE 525 (4) - Stochastic Processes	-	-

1 - If taking the thesis option, thesis units must be spread out over two quarters

2 – Students may select transportation elective courses or choose courses of the areas of their interest from “Non-CE Suggested Electives” list with consultation with their graduate advisor

3 – Outside department electives. Check course availability are required prerequisites with the catalog