

## TRANSPORTATION TRACK – TRN

FALL			SPRING		
CE 5400	Transportation Operations	3	CE 6410	Intro. to Transportation Planning	3
	TRN Elective (1)	3		TRN Elective (1)	3
	TRN Elective (1)	3		TRN Elective (1)	3
	SSRR Elective (2)	3		SSRR Elective (2)	3
	Technical Elective (3)	3		Technical Elective (3)	3
		15			15

(1) TRN Electives – students take four courses from the following list:

CE 5000	Large-Scale Project Management
CE 5020	Introduction to Geographic Information Systems
CE 6420	Public Transportation
CE 6430	Intermodal Transportation
CE 6440	Intelligent/Advanced Transportation Systems
CE 6450	Transportation Safety Engineering
CE 6470	Transportation Economics
CE 7400	Traffic Flow Theory
PLAC 5720	Transportation and Land Use
PLAN 5740	Transportation Planning and Policy

(2) Systems, Sustainability, Resilience, and Risk (SSRR) electives – students must complete two courses from the following list:

CE 6009	The Art and Science of Systems Modeling
CE 6490	Transportation Data Analysis and Modeling
ECON 7710	Econometrics I
PPOL 7035	Cost-Benefit Analysis <i>(does not count as SSRR if CE 6470 is also taken)</i>
STAT 6440	Introduction to Bayesian Methods
SYS 6001	Introduction to Systems Analysis & Design
SYS 6021	Linear Statistical Models
SYS 6023	Cognitive Systems Engineering
SYS 6043	Applied Optimization
SYS 6050	Risk Analysis

(3) Technical electives may include any technical course at or above the 5xxx level approved by the academic adviser. One elective may constitute research or a professional internship (i.e., CE 6995 - refer to the CE website for details).

(4) Pre-requisites for the TRN track include: college calculus and calculus-based probability and statistics, engineering economics (CE 2020 or equivalent), and a course in Transportation Facilities Design (CE 3400 or equivalent).

- (5) Students may be permitted to modify this framework, pending approval of their academic advisor and the CE Director of Graduate Studies. Additionally, online courses from Virginia's CGEP program may be suitable to meet the requirements for this degree. See [cgep.virginia.gov/courses](http://cgep.virginia.gov/courses) for current course offerings.