

Civil and Environmental

Master of Engineering: 30 Credits / 10 Courses

Students in the Master of Engineering in Civil and Environmental engineering program must focus on one of four areas of study:

Geotechnical and Pavements

Structures

Environmental and Water Resources

Transportation

In addition to the recommended courses in a given area, students may select technical electives approved by the academic advisor. All electives must be part of an integrated program of study. There is no research or thesis required for this degree.

Geotechnical and Pavements (choose 6):	
	ENCE441 Foundation Design
	ENCE447 Pavement Engineering
	ENCE640 Advanced Soil Mechanics
	ENCE641 Advanced Foundations Systems
	ENCE644 Adv. Pavement and Civil Engineering Materials
	ENCE645 Geotechnics of Waste Disposal
	ENCE646 Geosynthetic Engineering
	ENCE647 Slope Stability and Seepage
	ENCE741 Earth Retaining Structures
	ENCE743 Soil Dynamics and Earthquake Engineering
	ENCE744 QA/QC and Specification for Highway Materials
	ENPM808Q Forensic Engineering
<i>Geotechnical and Pavements core courses can be supplemented with Structures courses</i>	

Structures (choose 6):	
	ENCE610 Fundamentals of Structural Analysis
	ENCE611 Finite Element Methods
	ENCE613 Structural Dynamics
	ENCE614 Computer Methods in Engineering
	ENCE710 Steel Structures I
	ENCE712 Masonry Structures
	ENCE713 Concrete Structures I
	ENCE715 Earthquake Engineering
	ENCE717 Bridge Structures
	ENPM808Q Forensic Engineering
<i>Structures core courses can be supplemented with Geotechnical and Pavements courses</i>	

Transportation (choose 6):	
	ENCE670 Highway Traffic Characteristics and Measurements
	ENCE672 Regional Transportation Planning
	ENCE673 Urban Transportation
	ENCE674 Urban Transit Planning and Rail Transport. Engineering
	ENCE675 Airport Planning and Design
	ENCE676 Highway Traffic Flow Theory
	ENCE677 OR Models for Transportation Systems Analysis
	ENCE681 Freight Transportation Analysis
	ENPM808Q Forensic Engineering

Environmental and Water Resources (choose 6):	
	ENCE630 Environmental and Water Resource Systems I
	ENCE631 Hydrologic and Nonpoint Pollution Models
	ENCE634 River Engineering
	ENCE635 Geographic Info. Systems for Watershed Analysis
	ENCE652 Biological Principles of Environmental Engineering
	ENCE650 Process Dynamics in Environmental Systems
	ENCE651 Chemistry of Natural Waters
	ENCE655 Environmental Behavior of Organic Pollutants
	ENCE730 Environmental and Water Resource Systems II
	ENCE753 Unit Operations of Environmental Engineering
	ENCE755 Transform. of Organic Compounds in the Environ.
	ENCE756 Bioremediation
	ENPM808Q Forensic Engineering
	ENPM8090 River Engineering

KEY	
Online Option *	(offering information)
[Prerequisite course]	