

**Technical Electives  
Civil Engineering Program**

**Construction Management and Transportation Courses**

<b>Course #</b>	<b>Title</b>	<b>Credit</b>	<b>Pre- &amp; Co-Requisite</b>
CE 45000	Transportation, Planning, and Policy	3	P: CE 21000, Junior Standing
CE 45100	Traffic Engineering	3	P: CE 34500
BUS 30102	Managing Operations in a Competitive Envir	3	P: PPOL 34800 and senior standing.
BUS 30200	Management of Organizations and People	3	P: Consent of instructor
PPOL 34800	Management Science	3	P: PPOL 30000/ STAT 30100, MA 15300

**Environmental and Water Resources Courses**

<b>Course #</b>	<b>Title</b>	<b>Credit</b>	<b>Pre- &amp; Co-Requisite</b>
CE 46500	Water and Wastewater Engineering	3	P: CHM 11500, Junior Standing
CE 46700	Solid Waste Management	3	P: CE 36500
CHM 11600	General Chemistry	4	P: CHM 11500 (C or better), C: MA 16500
CHM 24100	Introductory Inorganic Chemistry	4	P: CHM 11600, MA 16500
CHM 26100	Organic Chemistry	3	P: CHM 11600

**Geotechnical and Geo-environmental Courses**

<b>Course #</b>	<b>Title</b>	<b>Credit</b>	<b>Pre- &amp; Co-Requisite</b>
EAPS 30000	Environmental and Urban Geology	3	P: two college-level science courses
EAPS 32300	Structural Geology	3	P: consent of instructor
EAPS 45100	Principles of Hydrogeology	3	P: EAPS 33400 or consent of instructor

**Structural and Materials Courses**

<b>Course #</b>	<b>Title</b>	<b>Credit</b>	<b>Pre- &amp; Co-Requisite</b>
CE 47500	Design of Steel Structures	3	P: CE 37500
CE 48000	Finite Element Analysis	3	P: CE 31800, CE 37500
CE 57000	Advanced Structural Mechanics	3	P: CE 25200 or equivalent

**Special Topics**

<b>Course #</b>	<b>Title</b>	<b>Credit</b>	<b>Pre- &amp; Co-Requisite</b>
CE 48800	Civil Engineering Design Project II	3	P: CE 48700
CE 49000	Selected Topics in Civil Engineering	3	P: Consent of instructor
CET 20900	Land Surveying and Subdivision	3	P: CET 20600/CE 21000
ME 20000	Thermodynamics	3	P: CHM 11500, C: MA 26100
ME 47100	Vibrations Analysis	3	P: CE/ME 25100
ME 50900	Intermediate Fluid Mechanics	3	P: CE/ME 31800
PPOL 46500	GIS for Public and Environmental Affairs	3	P: ETCS 10600.
SE 52000	Engineering Economics	3	P: Senior or graduate standing
STAT 51200	Applied Regression Analysis	3	P: MA 51100

Notes:

- A maximum of two elective courses can be taken from non-civil engineering courses.
- Other courses may be approved with the consent of the advisor with consultation with the civil engineering curriculum committee.
- Effective starting spring semester 2015.