



CIVIL FOCUS AREA: CEE Practice

Department of Civil and Environmental Engineering

General Education (19 sh)		sh
ALL	RHET:1030 Rhetoric	4
F/S	Diversity & Inclusion	3
ALL	Be Creative	3
ALL	Approved Gen Ed Course	3
ALL	Approved Gen Ed Course	3
ALL	Approved Gen Ed Course	3

Math & Basic Science Core (24 sh)		sh
F/S	MATH:1550 Math I: Single Variable Calculus (P: ALEKS score ≥ 75 or MPT Level 3 score ≥ 9)	4
ALL	MATH 1560 Math II: Multivariable Calculus (P: MATH:1550)	4
ALL	MATH:2550 Math III: Matrix Algebra (P: MATH:1550)	2
ALL	MATH:2560 Math IV: Differential Equations (P: MATH:1560 & MATH:2550)	3
F/S	STAT:2020 Probability & Statistics For Engr & Phys Sci (P: MATH:1560)	3
ALL	CHEM:1110 Principles of Chemistry I (P: ALEKS score ≥ 55 or MPT Level 3 score ≥ 9)	4
ALL	PHYS:1611 Introductory Physics I / Lab (C: MATH:1550)	4

Engineering Core (7 sh)		sh
F	ENGR:1000 Engineering Success for First-Year Students (First semester standing)	1
F	ENGR:1100 Intro to Engineering Problem Solving	3
F/S	ENGR:1300 Intro to Engineering Computing (C: MATH:1550)	3

Civil Engineering Requirements (45 sh)		sh
ALL	CHEM:1120 Principles of Chemistry II (P: CHEM:1110)	4 OR
F/S	PHYS:1612 Introductory Physics II / Lab (P: PHYS:1611; C: MATH:1560)	4
ALL	ENGR:2110 Statics (P: MATH:1550; C: MATH:1560 & PHYS:1611)	2
ALL	ENGR:2130 Thermodynamics (P: CHEM:1110 & PHYS:1611; C: MATH:1560)	3
F/S	ENGR:2510 Fluid Mechanics (P: MATH:2560 & ENGR:2710; C: ENGR:2130)	4
ALL*	ENGR:2710 Dynamics (P: ENGR:2110 & MATH:1550)	3
ALL*	ENGR:2750 Mechanics of Deformable Bodies (P: ENGR:2110; C: MATH:2560)	3
ALL	CEE:1030 Intro to Earth Science (no lab required)	3
F	CEE:2015 Civil Engineering Tools	2
S	CEE:3155 Principles of Environmental Engineering (P: CHEM:1110)	4
S	CEE:3371 Principles of Hydraulics and Hydrology (P: ENGR:2510)	3
F	CEE:3530 Geomechanics (P: ENGR:2750)	4
F	CEE:3533 Principles of Structural Engineering (P: ENGR:2750)	4
S	CEE:3586 Civil Engineering Materials (P: ENGR:2750)	3
S	CEE:3763 Principles of Transportation Engineering (C: ENGR:1100)	3

Capstone Design Courses (3 sh)		sh
F/S	CEE:4850 Project Design & Management in CEE (P: final semester; C: CEE:3003)	3

CEE Professional Skills (4 sh)		sh
S	CEE:2010 Professional Practice and Ethics	1
F	CEE:3001 Leadership Skills for Engineers (junior standing)	1
S	CEE:3002 Technical Communication in CEE (junior standing)	1
F	CEE:3003 Project Management Skills (senior standing)	1

Required: CEE Practice (0 sh)		sh
None required		

Electives: CEE Practice (27 sh)		sh
CEE Design Course*		sh
select 2 courses from this list		
F	CEE:4157 Environmental Engineering Design (P: CEE:3155)	3
F	CEE:4374 Water Resource Design (P: CEE:3371)	3
F	CEE:4506 Design of Concrete Structures (P: CEE:3533)	3
OR S	CEE:4535 Design of Steel Structures (P: CEE:3533)	3
F	CEE:4762 Design of Transportation Systems (P: CEE:3763)	3

Electives: Focus Area, Minor, Certificate, etc.		sh
select 5 courses from the list below		
Any additional CEE Design Course(s) listed above		
S	CEE:3783 Surveying & Remote Sensing (P: ENGR:1100)	3
S	CEE:3790 Resilient Infrastructure and Emergency Response	3
F	CEE:4102 Groundwater	3
F	CEE:4158 Solid and Hazardous Wastes	3
S	CEE:4159 Air Pollution Control Technology	3
F	CEE:4119 Hydrology (P: ENGR:2510)	3
S	CEE:4371 Water Resources Engineering (C: CEE:3371)	3
F	CEE:4539 Foundations of Structures (P: CEE:3530)	3
F	CEE:4763 Traffic Engineering (P: CEE:3763)	3
Any additional 3000 level or above elective course(s) in CEE		

Electives: Focus Area, Minor, Certificate, etc.		sh
select 2 courses from the list below		
Any additional CEE Design Course(s) listed above		
Any additional elective course(s) in CEE		
S	ISE:2500 Engineering Economy (C: STAT:2020)	3
F/S	ENGR:2120 Electrical Circuits (C: MATH:2560)	3
F/S	ENGR:2995 Intro to AI & Machine Learning in Engineering (P: ENGR:1300; C: MATH:2550)	3
F/S	ENGR:2730 Computers in Engineering (P: ENGR:1300)	3
Any pre-approved non-engineering Focus Area course(s) (see CEE web site for list of pre-approved courses)		
All other course(s) require approval for Focus Area credit (see CEE web site regarding the approval process)		

Total Semester Hour Requirements: 129