

CONSTRUCTION ENGINEERING

Construction Engineering is a broad-based program. This program is specifically oriented toward an individual's interest, and should emphasize the research and development of Construction Engineering or the design and application aspect of Construction Engineering. Each student's Tentative Program of Work must be developed before completing twelve (12) graduate credit hours. Students pursuing a M.S. or M.E. degree must meet with their supervising committee to fully establish their program of study. Course requirement for this master's degree are listed below.

Master of Science Degree

Core Courses: Eighteen (18) semesters hours are required from the Core Course list.

Elective Courses: Six (6) semester hours of elective course work must be taken from Civil Engineering Electives. Course selection must result in a cohesive program that supports the thesis and must receive the approval of the students supervising committee.

Thesis: Six (6) hours of thesis must be enrolled in during the semester the student finishes, the semester in which the thesis is successfully defended, and the final Master's Examination is unconditionally passed. The degree candidate must defend the thesis in a final oral examination open to all members of the faculty. Once enrolled in thesis courses, continuous enrollment is required.

Master of Engineering Degree

Core Courses: Eighteen (18) semesters hours are required from the Core Course list. Additionally, each student must complete a three (3) hour project (CE 5395 Master's Project) approved by student's supervising committee.

Elective Courses: Nine (9) semester hours of elective course work must be taken from Civil Engineering Electives. Six (6) additional semester hours of elective course work must be taken from Industrial Engineering or other Engineering Electives. Sample elective courses are listed below. Course selection must result in a cohesive program that supports the thesis and must receive the approval of the students supervising committee.

Final Exam: Enrollment in CE 5193, Master's Comprehensive Examination is required in the semester of graduation.

FINAL DEGREE REQUIREMENTS vary depending upon a student's background and experience. Student's supervising committee establishes individual degree requirements.

Core Courses	(or CE 4365)	CE 5341 Pavement Evaluation, Rehabilitation & Management Systems
CE 5344 Construction Methods – Field Operations	CE 5308 Structural Masonry Design (or CE 4360)	CE 5338 System Evaluation
CE 5377 Construction Project Mgt. and Job Costing	CE 5309 Prestressed Concrete (or CE 4363)	CE 5336 Pavement Design
CE 5378 Construction Contracts, Specifications and Administration	CE 5311 Advanced Steel Design I	CE 5361 Design & Construction of Asphalt Concrete
CE 5379 Construction Cost Estimating	CE 5312 Advanced Concrete Design I (or CE 4361)	CE 5363 Rigid pavements
CE 5386 Construction Planning and Scheduling	CE 5345 Infrastructure Evaluation, Maintenance and Renewal	Industrial Engineering
CE 5387 Construction Productivity	CE 5364 Foundation Analysis and Design (or CE 4321)	IE 5301 Advanced Operations Research
Civil Engr. Electives	CE 5388 Pipeline Construction and Trenchless Technology	IE 5318 Advanced Engineering Statistics
CE 5300 Topics in Civil Engineering	CE 5389 Infrastructure Asset Management and Sustainability	IE 6302 Facilities Planning and Design
CE 5306 Structural Steel Design (or CE 4348)		
CE 5307 Structural Timber Design		

Planned Schedule of Class Offerings* <small>(*summer class offerings subject to change due to budget constraints)</small>	2011-2012			2012-2013			2013-2014			2014-2015			2015-2016			
	F	S	S	F	S	S	F	S	S	F	S	S	F	S	S	
CE 5344 Const Methods – Field Operations (CE 4332)		D				D			D						D	
CE 5345 Infra. Evaluation, Maint. & Renewal (CE 4302)	D			D			D			D			D			
CE 5377 Const. Project Mgt. & Job Costing (CE 4301)	D			D			D			D			D			
CE 5378 Const. Contracts, Specs. & Adm. (CE 4334)		D			D			D			D			D		
CE 5379 Construction Cost Estimating	C			C			C			C			C			
CE 5386 Construction Planning and Scheduling	C			C			C			C			C			
CE 5387 Construction Productivity	C			C			C			C			C			
CE 5388 Pipeline Const. & Trenchless Tech.* (CE 4305)			D ¹			D ¹			D ¹			D ¹			D ¹	
CE 5389 Infrastructure Asset Mgt & Sustainability (CE 4306)			D ²			D ²			D ²			D ²			D ²	

The Department may change the courses offered without notice. Summer Schedule, usually available by April 1, lists available summer courses. C-On Campus Only, D-Campus & Distance Learning Courses, Course number in () indicates dual course offered composite with this course. D¹ - 1st Summer Session (5-week course) D² - 2nd Summer Session (5-week course)