

STRUCTURES AND APPLIED MECHANICS ENGINEERING

The Structures and Applied Mechanics engineering program is broad-based. Each student's final program is specifically oriented toward an individual's interest, and should emphasize the research and development of structures or applied mechanics, or the design and application aspect of structures. Each student's program of study must be developed before completing twelve (12) graduate credit hours. Students pursuing a M.S., M.E. or Ph.D. degree must meet with their supervising committee to fully establish their program of study. Course requirements for the master's degree and PhD degree are listed below.

MASTER OF SCIENCE DEGREE (24 semester hours of course work plus thesis hours)

Core Courses: Eighteen (18) semester hours of core coursework are required including CE 5303 Introduction to Finite Element, CE 5309 Prestressed Concrete, CE 5311 Advanced Steel Design I, CE 5312 Advanced Concrete Design I, CE 5315 Advanced Mechanics of Materials and CE 5351 Advanced Theory of Structures.

Elective Courses: A minimum of six (6) semester hours of elective coursework is required from the list below. Exceptions are permitted only upon approval by the Structure area faculty of student submitted petitions.

Thesis: Once the student is enrolled in the thesis course(s), continuous enrollment is required. The student must be enrolled in six (6) hours of thesis during the semester the student finishes the thesis requirements and files for graduation.

MASTER OF ENGINEERING DEGREE (36 semester hours of course work plus final exam hour)

Core Courses: Eighteen (18) semester hours of core coursework are required including CE 5303 Introduction to Finite Element, CE 5309 Prestressed Concrete, CE 5311 Advanced Steel Design I, CE 5312 Advanced Concrete Design I, CE 5315 Advanced Mechanics of Materials and CE 5351 Advanced Theory of Structures.

Electives Courses: A minimum of eighteen (18) semester credit hours of elective course work is required from the list below. Exceptions are permitted only upon approval by the Structure area faculty of student submitted petitions.

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

PHD STUDENTS

All Ph.D. students must complete or have completed the core course requirements of the Master of Science degree. In addition, generally recommended courses for Ph.D. students include: (1) CE 6350 Advanced Concrete Design II, (2) CE 6352 Advanced Finite Element Method, (3) CE 6355 Earthquake Engineering, (4) CE 6357 Structural Stability, (5) CE 6358 Advanced Analysis in Mechanics, (6) CE 6359 Plates and Shells and (7) CE 6360 Theory of Elasticity.

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

Planned Schedule of Class Offerings* <i>(*summer class offerings subject to change due to budget constraints)</i>	2010 - 2011			2011 - 2012			2012 - 2013			2013 - 2014			2014 - 2015		
	F	S	S	F	S	S	F	S	S	F	S	S	F	S	S
CE 5300 Special Topics To be announced															
CE 5302 Plain Concrete To be announced															
CE 5303 Introduction to Finite Element (CE 4325)	C			C			C			C			C		
CE 5305 Fiber Reinforced Composite Design (CE 4366) To be announced															
CE 5306 Structural Steel Design (CE 4348)		C		C			C			C			C		
CE 5307 Structural Timber Design (CE 4365)	C						C						C		
CE 5308 Structural Masonry Design (CE 4360)				C						C					
CE 5309 Prestressed Concrete (CE 4363)		C		C			C			C			C		
CE 5310 Plastic Analysis and Design of Structures			C		C							C			
CE 5311 Advanced Steel Design I		C		C			C			C			C		
CE 5312 Advanced Concrete Design I (CE 4361)	C			C			C			C			C		
CE 5314 Advanced Steel Design II To be announced															
CE 5315 Advanced Mechanics of Materials (CE 4324)	D			D			D			D			D		
CE 5351 Advanced Theory of Structures (CE 4368)		C		C			C			C			C		
CE 5383 Experimental Stress Analysis To be announced															
CE 5384 Concrete Bridge Design	D						D						D		
CE 6350 Advanced Concrete Design II To be announced															
CE 6352 Advanced Finite Element Method					C						C				
CE 6355 Earthquake Engineering					C						C				
CE 6357 Structural Stability		D					D						D		
CE 6358 Advanced Analysis in Mechanics					C						C				
CE 6359 Plates and Shells To be announced															
CE 6360 Theory of Elasticity			C						C						C

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 Course, **Course** ncourse offered composite with th