

MSCE Coursework Requirements

	Course Number	Course Title	Units
Required Courses	ENGR 833	Principle of Earthquake Engineering	3
	ENGR 836	Structural Design for Earthquakes	3
	ENGR 839	Advanced Topics in Civil Engineering	3
Option A	ENGR 897	Research	3
	ENGR 898	Master's Thesis	3
Option B	ENGR 895	Applied Research Project	3
Electives	Engineering ^{1,3} and Non-Engineering ²		15-18
Minimum Total			30
1. Engineering Electives	ENGR 425	Reinforced Concrete Structures	3
	ENGR 426	Steel Structures	3
	ENGR 427	Wood Structures	3
	ENGR 431	Foundation Engineering	3
	ENGR 461	Mechanical and Structural Vibration	3
	ENGR 438	Transportation Planning	3
	ENGR 826	Seismic Hazard Analysis	3
	ENGR 827	Structural Design for Fire Safety	3
	ENGR 828	Base Isolation and Energy Dissipation	3
	ENGR 829	Advanced Topics in Structural Engineering	3
	ENGR 831	Advanced Concrete Structures	3
	ENGR 832	Advanced Topics in Seismic Design	3
	ENGR 835	Advanced Steel Structures	3
	ENGR 837	Geotechnical Earthquake Engineering	3
	ENGR 838	Smart Structures Technology	3
ENGR 899	Independent Study	3	
2. Non-Engineering Electives	A maximum of 3 units of electives can be non-engineering. These units can be selected from Mathematics, Physics, Chemistry, Computer Science, Business, Accounting, or Information Systems with course numbers 400 or higher. Course outside of these areas will need approval of graduate program coordinator, including those taken at other Engineering schools.		
3. Undergraduate Course Restrictions	a) Elective courses must not duplicate subjects used in satisfying the student's undergraduate degree requirement. b) The study plan can contain up to 9 units of courses with course number between 400 and 700.		
4. Minimum admission Requirements	B.S. in Civil Engineering from an ABET accredited program, or a B.S. in other engineering or science programs and the equivalent of the following courses: MATH: MATH 226, 227, 228, 245 PHYS: PHYS 220/222 CHEM: CHEM 115/180 ENGR: ENGR 102, 200, 201, 309, 323, 430, 425, 426 (One of the 425 or 426 may be used for graduate credits)		