The Henry Samueli School of Engineering

13/14 Master's Degree Plan of Study: Environmental Engineering

Student Information						
Last name:	First name:	Advisor If any:				
Student ID:	Email Contact:	Phone:				
Local address:						
Expected graduation date (Quarter/Year):						

Course Work (minimum of 48 units required)

Course work (minimum of 46 units required)							
						Thesis Option	Non-thesis Option
						At least 28 units must be nonresearch, graduate-level courses, including 5 core courses	At least 36 units must be nonresearch, graduate-level courses, including 5 core courses
Core	Area	Course	Units	Grades	Qrt/yr		
Requirements*	Advanced Math					One course is required	One course is required
	Eng Seminar	CEE295				Two units are	Two units are
	Eng Seminar	CEE295				required	required
Areas of Emphasis	Water Qual & Treatment					One course in each of the four primary	One course in each of the four primary
Requirement*	Hydrology/Water Resources					areas of environmental	areas of environmental
	Air Quality					engineering are	engineering are
	Energy					required	required
Graduate Electives*						Graduate elective courses should be numbered 200–291	Graduate elective courses should be numbered 200–291
Undergraduate						Up to 10 units can	Up to 10 units can
Electives						be applied (with prior approval of the Grad Advisor)	be applied (with prior approval of the Grad Advisor)
Research Units						Up to 16 units can	Up to 8 units can
						be applied (CEE296)	be applied (CEE299)
	<u> </u>	1		Units To	tal	(6222/0)	(0222))
*See att	ached list for core a	and electiv	e course	es			
Signatur	e of Students:					Date:	
Program	Director:					Date:	
Associate Dean of Engineering:			Date:				

Core Requirement

Students entering the program without an M.S. degree must complete the following core requirements (22units) before petitioning to Advance to Candidacy for the M.S. degree

Area	Requirements	Course codes
Advanced Mathematics	One of the three	CBEMS230 (Applied Engineering Mathematics I), Fall
		CEE283 (Mathematical Methods in Engineering Analysis), Fall
		MAE200A (Engineering Analysis I)
Environmental Seminar	Two quarters	CEE295 (Sem B listed under 'Davis, K'), Fall, Winter, Spring

Areas of Emphasis Requirement

There are four primary areas of emphasis within Environmental Engineering: Water Quality and Treatment, Hydrology and Water Resources, Air Quality, and Energy. To achieve the interdisciplinary objectives of the program, students are required to take at least one course from each of the four primary areas of Environmental Engineering. Students can take additional elective courses in one of the four areas or from more than one area. Courses outside of the School of Engineering (i.e. Earth System Science, Public Health, Biological Sciences) can be used toward elective credits with the approval of the faculty advisor and the graduate director. Courses within each of the emphasis areas in Engineering are listed below.

Elective Courses by Areas of Emphasis

Elective Courses by Areas of Emphasis					
Water Quality and	Hydrology & Water	Air Quality	Energy		
Treatment	Resources				
CBEMS218 (Bioeng	CEE271 (Flow in	MAE 215(Adv	CEE264 (Carbon and		
w/Recomb Micro Orgs)	Unsaturated Porous Media)	Combustion Techno)	Energy Footprint		
CBEMS220 (Transport	CEE272 (Grndwatr Hydro)	MAE 231 (Fundamentls	Analysis)		
Phen)	CEE276 (Hydrology)	of Turbulence)	MAE214 (Fuel-Cell		
CEE260 (Desalination)	CEE277 (Hydrol Transport	MAE 233 (Turb Free	Fundamentals and		
CEE261 (Appl Environ	Fundamentals)	Shear Flows)	Techno)		
Microbio)	CEE278 (Fluid Mech of	MAE 261 (Air Quality	MAE218 (Sustainable		
CEE263 (Adv Bio Treat	Open Channels)	Modeling)	Energy Systems)		
Proc)	CEE279 (Hydrologic	ESS 220 (Earth Sys	MAE 260 (Current		
CEE265 (Phys Chem Treat	Comput Modeling)	Climatology)	Issues Rel to Trop &		
Proc)	CEE290 (Merging Models	ESS 240 (Atm Chem	Starto Proc)		
CEE266 (Water and	and Data)	Physics)			
Wastewater Biotech)					
CEE267 (Ecology of Coastal					
Waters)					