Environmental Engineering

FALL			FIRST YEAR	SPRING		
CHEM 1100	Chemistry I	4		CIVL 1100	Intro to Civil & Environmental Eng. [2]	1
MATH 1010	Calculus I	4		MATH 1020	Calculus II	4
ENGR 1100	Intro. to Engineering Analysis	4		PHYS 1100	Physics I	4
CIVL 1200	Eng. Graphics for Civil Eng [1]	1			Science Elective [3]	4
	Hum., Arts or Soc. Sci. Elective	4			Hum., Arts or Soc. Sci. Elective	4
			SECOND YEAR			
MATH 2400	Intro. to Differential Equations	4		ENVE 2110	Intro to Environmental Engineering	4
PHYS 1200	Physics II	4			Multidisciplinary Eng. Elective [6]	3
CSCI 1190	Beginning C Prog. for Eng.[5]	1			Science Elective [3]	4
ENGR 2250	Thermal and Fluids Eng [4]	4			Hum., Arts or Soc. Sci. Elective	4
ENGR 2600	Modeling & Analysis of Uncert	3				
Summer Arch			THIRD YEAR	Spring		
CHEM 2250	Organic Chemistry I	3		ENVE 4320	Environmental Chemodynamics	4
ENVE 4310	Applied Hydrology & Hydr.	4		ENVE 4340	Physiochemical Processes in ENVE	4
ENGR 2050	Intro to Engineering Design	4			Technical Elective [7]	3
	Hum., Arts or Soc. Sci. Elective	4			Professional Development II [8]	2
					Free Elective I	4
			FOURTH YEAR			
ENVE 4330	Intro to Air Quality	4		ENVE 4180	Environmental Process Design	3
ENVE 4350	Biological Processes in ENVE	4		ERTH ####	Earth Science Elective [9]	4
ENGR 4010	Professional Development III	1			Free Elective III	4
	Technical Elective [7]	3			Hum., Arts or Soc. Sci. Elective	4
	Free Elective II	4				

1. *CIVL 1200 may be replaced with ENGR 1200 or ENGR 1400.*
2. *CIVL 1100 may be replaced with ENGR 1300*
3. *Choose CHEM 1200 and either BIOL 1010 or another biology course chosen in consultation with adviser. Order does not matter.*
4. *ENGR 2250 may be replaced by CHME 4010.*
5. *CSCI 1190 may be replaced with CSCI 1100 or CSCI 1010.*
6. *Multidisciplinary engineering elective: must be a 3 or 4 credit engineering course, chosen in consultation with the adviser (e.g., CIVL 2030, CIVL 2630, ENGR 1600, ENGR 2530, ENGR 4760, ISYE 4140).*
7. *Technical electives must be an engineering course 2000 level or above, selected in consultation with the program adviser (e.g., ENVE 4110, ENVE 4200, ENVE 4210, ENVE 4240). With adviser approval, courses from other disciplines may also be taken. These include Civil Engineering and Chemical Engineering (for example, CHME 4030, CIVL 2630, CIVL 4150, and others).*
8. *This course will be fulfilled from a list published at the start of the semester.*
9. *Earth Science Elective: must be an Earth Science course 2000-level or above. Choose from ERTH 2140, ERTH 2330, ERTH 4070, or ERTH 4500.*

EnvE Multidisciplinary Engineering Electives	EnvE Technical Electives
Core Engineering	**Environmental Engineering**
ENGR 1600 Materials Science	ENVE 4110 Aqueous Geochemistry
ENGR 2530 Strength of Materials	ENVE 4200 Solid and Hazardous Waste Eng.
ENGR 4760 Engineering Economics	ENVE 4240 Bench Scale Design
	ENVE 4360 Geomicrobiology
Transportation Engineering	ENVE/ERTH 4560 Isotope Geochemistry
CIVL 2030 Intro. to Transportation Engineering	ENVE/ERTH 4710 Groundwater Hydrology
	ENVE 496X Special Topics announced each semester
Geotechnical Engineering	
CIVL 2630 Intro. to Geotechnical Engineering	**Civil Engineering**
	CIVL 2630 Intro. to Geotechnical Engineering
Industrial and Systems Engineering	CIVL 4140 Geoenvironmental Engineering
ISYE 4260 Human Performance Modeling and Support	
	Chemical Engineering
Mechanical, Aerospace and Nuclear Engineering	CHME 4030 Chemical Process Dynamics & Control
MANE 4010 Thermal and Fluids Engineering II	CHME 4400 Chromatographic Separation Processes

128 credits minimum