

# Environmental Engineering

(ABET Accredited)  
Class of 2012

**Mathematics & Basic Science Requirements (9 Courses)**

CHM 201 or 207	MAT 103, 104	COS 126
PHY 103, 104	MAT 201, 202, or 203, 204	MAE 305

**Engineering Science Requirements (9 Courses)**  
(Core Courses)

CEE 205	CEE 306 or CEE 307	CEE 364 or CEE 365
CEE 303	CEE 308	ORF 245
CEE 305	CEE 361	MAE 222

**Engineering Design Requirements (4 Courses)**

CEE 471	CEE 477	CEE 478 – Senior Thesis (Counts as two courses)
---------	---------	---

<i>Freshman Year</i>	
Fall 08	Spring 09
1. CHM 201 or 207	1. COS 126
2. MAT 104	2. MAT 201
3. PHY 103	3. PHY 104
4. _____	4. _____
5. _____	5. _____

<i>Sophomore Year</i>	
Fall 09	Spring 10
1. CEE 205	1. CEE 303
2. ORF 245	2. MAE 222
3. MAT 202	3. MAE 305
4. _____	4. _____
5. _____	5. _____

<i>Junior Year</i>	
Fall 10	Spring 11
1. CEE 305	1. CEE 306 or 307
2. CEE 361	2. CEE 308
3. _____	3. CEE 364*
4. _____	4. _____
5. _____	5. _____

<i>Senior Year</i>	
Fall 11	Spring 12
1. CEE 471	1. CEE 478 (thesis)
2. CEE 477	2. _____
3. CEE 478 (thesis)	3. _____
4. _____	4. _____
5. _____	5. _____

Program Electives (4 or more)	
1. _____	6. _____
2. _____	
3. _____	
4. _____	
5. _____	

Humanities Electives (7 or more)	
1. _____	6. _____
2. _____	7. _____
3. _____	8. _____
4. _____	9. _____
5. _____	

Notes:

\*CEE 364 and 365 will be offered each calendar year in alternation

## Recommended Program Electives

Four or more Program Electives must be chosen from the list below. Three courses must provide a coherent sequence in the student's area of interest. Only one 200-level course may be chosen as a Program Elective. Any course listed under Engineering Science Requirements not used to fulfill that requirement may be used as a Program Elective. The single bullet (●) indicates course that are highly recommended.

### ***Civil and Environmental Engineering***

- CEE 262 Structures and the Urban Environment
- CEE 362 Structural Dynamics and Earthquake Engineering
- CEE 366 Design of Reinforced concrete Structures
- CEE 375/376 Independent Research Project
- CEE 460 Risk Assessment and Management
- CEE 461 Design of Large-Scale Structures: Buildings
- CEE 472 Hydrometeorology and Remote Sensing

### ***Chemistry/Geology***

- CHM 301 Organic Chemistry I
- CHM 303 Organic Chemistry I – Biological Focus
- CHM 304 Organic Chemistry II
- CHM 333 Oil to Ozone:Chemistry of the Environment
- CHE 246 Thermodynamics or CHM 306 Physical Chemistry
- GEO 235 The Physical Earth
- GEO 322/ENV 322 Biogeochemical Cycles and global Change
- GEO 331 Introduction to Geochemistry
- GEO 336 Environmental Isotope Geochemistry
- GEO 339 Climate Change: Scientific Basic, Policy Implications
- GEO 399 Environmental Decision Making
- GEO 417 Environmental Microbiology
- GEO 418 Environmental Aqueous Geochemistry
- GEO 425 Introduction to Physical Oceanography
- GEO 427 Introduction to Terrestrial and Planetary Atmospheres
- GEO 470 Environmental Chemistry of Soils
- GEO 499 Investigating Natural Hazards

### ***Biology/Ecology***

- MOL 214 Introduction to Cellular and Molecular Biology (or EEB 210 Evolutionary Ecology)
- EEB 308 Conservation Biology
- EEB 317 Ecology of Fields and Woodlands
- EEB 321 Introduction to Population and Community Ecology
- EEB 322 Advanced Ecology
- EEB 324 Theoretical Biology
- EEB 417 Ecosystems and Global Change

### ***Energy and Environment***

- MAE 221 Thermodynamics
- MAE 328 Energy for a Greenhouse-Constrained World
- MAE 427 Fossil Fuel Energy Conversion: Mobile Power Plants

### ***Finance***

- ORF 335 Introduction to Financial Engineering

- Highly recommended