Environmental Engineering

(ABET Accredited)

Class of 2011

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 263	CEE 308	ORF 245
CEE 303	CEE 361	MAE 222

Engineering Design Requirements (4 Courses)

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

Freshman Year	
Fall	Spring
1. CHM 201 or 207	1. COS 126
2. MAT 104	2. MAT 201
3. PHY 103	3. PHY 104
4. _____	4. _____
5. _____	5. _____

Sophomore Year	
Fall	Spring
1. CEE 205	1. CEE 303
2. ORF 245	2. MAE 222
3. MAT 202	3. MAE 305
4. _____	4. _____
5. _____	5. _____

Junior Year	
Fall	Spring
1. CEE 361	1. CEE 306
2. _____	2. CEE 308
3. _____	3. CEE 364*
4. _____	4. _____
5. _____	5. _____

Senior Year	
Fall	Spring
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 263 Rivers and the Regional 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 solids
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