

Geological 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 out of 10)
(Core Courses)

CEE 205	CEE 308 or GEO 300	GEO 235
CEE 303	CEE 361	GEO 424 or 418
CEE 306 or 307	GEO 316 and/or CEE 365	ORF 245

Engineering Design Requirements (4 Courses)

CEE 471	CEE 477	CEE 478 – Senior Thesis (Counts as two courses)
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<i>Freshman Year</i>	
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. _____

<i>Sophomore Year</i>	
Fall	Spring
1. CEE 205	1. CEE 303
2. GEO 235	2. MAE 305
3. MAT 202	3. GEO 316
4. _____	4. _____
5. _____	5. _____

<i>Junior Year</i>	
Fall	Spring
1. CEE 361	1. CEE 306
2. ORF 245	2. CEE 308
3. GEO 424 or 418	3. _____
4. _____	4. _____
5. _____	5. _____

<i>Senior Year</i>	
Fall	Spring
1. CEE 471/477/461	1. CEE 478 (thesis)
2. CEE 478 (thesis)	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____

<i>Program Electives (4 or more)</i>	
1. _____	6. _____
2. _____	
3. _____	
4. _____	
5. _____	

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

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 364 Materials in Civil 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
- CEE 477 Environmental and Civil Engineering Systems Planning and Design

Other Engineering

- MAE 221 Thermodynamics
- MAE 222 Mechanics of Fluids
- MAE 323 Advanced Solid Mechanics and Structural Design
- ORF 301 Elements of Interactive Computer Graphics
- ORF 307 Optimization

Chemistry/Geology

- CHM 303 Organic Chemistry I
- CHM 306 Physical Chemistry II
- CHM 305 Evolution and Catastrophes
- GEO 308 Sedimentology and Stratigraphy
- GEO 312 Introduction to Mineralogy and Petrology
- GEO 314 Igneous and Metamorphic Geology
- GEO 320 Introduction to Geophysics
- GEO 322/ENV 322 Biogeochemical Cycles and Global Change
- GEO 331 Introduction to Geochemistry
- GEO 336 Environmental Isotope Geochemistry
- GEO 399 Environmental Decision Making
- GEO 416 Evolution of the Continents
- GEO 417 Environmental Microbiology
- GEO 418 Environmental Aqueous Geochemistry
- GEO 419 The Earth as a Physical System
- GEO 424 Introductory Seismology and Oil Exploration
- GEO 425 Introduction to Physical Oceanography
- GEO 427 Introduction to Terrestrial and Planetary Atmospheres
- GEO 428 Biological Oceanography
- GEO 470 Environmental Chemistry of Soils
- GEO 499 Investigating Natural Hazards

- Highly recommended