

# Architecture and Engineering – Structures Focus

(ABET Accredited)  
Class of 2010

**Mathematics & Basic Science Requirements (8 Courses)**

(Engineering School Requirements)

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

**Engineering Science Requirements (10 Courses)**

(Core Courses)

CEE 205                      CEE 361                      CEE 362                      ORF 245  
CEE 262A                      CEE 364                      MAE 305  
CEE 303 or 306                      CEE 365                      ARC JIW

**Engineering Design Requirements (4 Courses)**

CEE 366                      CEE 461                      CEE 478 – Senior Thesis (Counts as two courses)

<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 262A
2. ARC 203	2. ARC 204 ( <i>studio</i> )
3. MAT 202	3. CEE 365(a)
4. ART 242	4. MAE 305
5. _____	5. _____

<i>Junior Year</i>	
Fall	Spring
1. CEE 361	1. CEE 303 or 306
2. ARC JIW (e) ( <i>studio</i> )	2. CEE 364(a)
3. CEE 362	3. CEE 366
4. ORF 245	4. _____
5. _____	5. _____

<i>Senior Year</i>	
Fall	Spring
1. CEE 461	1. CEE 462
2. CEE 478 (thesis)	2. CEE 478 (thesis)
3. _____	3. ARC Urbanism(d)
4. _____	4. _____
5. _____	5. _____

Program Electives (4 or more)	
1. ARC 203 (b)	6. _____
2. ARC 204 (b)	
3. ARC Urbanism (c)(d)	
4. ART 242 or 342 (c)	
5. Add'l course in Art and Archaeology (d) (e)	

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

Notes:

- (a) offered each calendar year in alternation
- (b) program requirement
- (c) can be used as either program elective or humanities and social science electives
- (d) select from listing on next page
- (e) alternatively can be taken in the spring

## Recommended Program Electives

All Architecture and Engineering Students must take ARC 401 or equivalent urbanism course as one of their Program Electives. The remaining three or more must be selected from the following list. These courses must form a coherent sequence in the student's area of interest. Two of these courses must be of Art/Architecture. The single bullet (●) indicates course that are highly recommended.

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

- CEE 263 Rivers and the Regional Environment
- CEE 303 Introduction to Environmental Engineering
- CEE 306 Hydrology
- CEE 308 Environmental Engineering Laboratory
- CEE 362 Structural Dynamics in Earthquake Engineering
- CEE 375/376 Independent Research Project
- CEE 460 Risk Assessment and Management
- CEE 462 Design of Large Scale Structures
- CEE 471 Introduction to Water Pollution Technology
- CEE 477 Environmental and Civil Engineering Systems Planning and Design

### ***Architecture & History***

ARC 204 Introduction to Architectural Design  
ARC 304 The Historical Development of Urban Form  
ARC 305 Urban Studies: Analysis of Contemporary Form  
ARC 308 History of Architectural Form  
ARC 406 Energy and Form  
HIS 398 Technologies & Their Societies: Historical Perspectives Other Engineering and Science

### ***Other Engineering and Science***

GEO 225 Earth: The Physical Environment  
MAE 305 Mathematics in Engineering I  
MAE 306 Mathematics in Engineering II  
MAE 323 Advanced Solid Mechanics and Structural Design  
ORF 301 Elements of Interactive Computer Graphics

### ***Humanities and Social Science Electives for Architecture and Engineering***

Two of the seven Humanities and Social Electives must be selected from the following list:

ARC 484 Rhetoric of Architecture – 18<sup>th</sup> to 20<sup>th</sup> Century  
ARC 493 The Nature of the Landscapes  
ART 206 Byzantine Art & Architecture  
ART 232 The Arts of the Islamic World  
ART 242 The Experience of Modernity: A Survey for Modern Architecture in the West  
ART 305 Greek & Roman Architecture  
ART 315 Medieval Architecture  
ART 320 Rome, the Eternal City  
ART 332 The Landscape of Allusion: Garden and Landscape Architecture 1450-1750  
ART 333 Renaissance & Baroque Architecture  
ART 342 Modern Architecture  
ART 351 Traditional Chinese Architecture  
ART 458 Modern Architecture

- Highly recommended