## General Education Requirements

### Fundamental Studies
- **Academic Writing (AW)** ENGL 101 3
- **Professional Writing (PW)** ENGL 393 3
- **Oral Communication (OC)**

### Distributive Studies
- **History/Social Sciences (HS*)**
- **Humanities (HU*)**
- **Humanities (HU*)**
- **Scholarship in Practice (SP*) out of major**

### I-Series Courses (IS)
- **I-Series (IS*)** 0/3
- **I-Series (IS*)** 0/3

### Diversity
- **Understanding Plural Societies (UP*)** 0/3
- **Understanding Plural Societies (UP*) OR Cultural Competency (CC*)** 0/3

## MAJOR REQUIREMENTS

### Basic Sciences
- **CHEM 135-Chem Engr OR 131 & 134 -Fund & Prin** 3/3 & 1
- **PHYS 161 - General Physics I (NS)** 3 or 4
- **PHYS 260 and PHYS 261 - Gen Physics II & Lab (NL)** 3 & 1
- **MATH 140 - Calculus I (MA/AR)** 4
- **MATH 141 - Calculus II** 4
- **MATH 241 - Calculus III** 4
- **MATH 246 - Differential Equations**
- **BSCI 160 or ENSP 101 or GEOL 100**

### Engineering Sciences
- **ENES 100 - Intro to Eng Design (SP)**
- **ENES 102 - Mechanics I**
- **ENES 220 - Mechanics II**
- **ENES 221 - Dynamics**

### Major Requirements
- **ENCE 100 - Intro to Civil Eng**
- **ENCE 200 - Civil Eng Computation**
- **ENCE 201 - Eng Info Processing**
- **ENCE 215 - Eng for Sustainability**
- **ENCE 300 - Fund of Eng Materials**
- **ENCE 302 - Probability & Stat for CEE**
- **ENCE 305 - Fund of Eng Fluids**
- **ENCE 360 - Analysis of Civil Eng Systems**

### Environmental & Water Resources Track
- **BIOE 120 - Biology for Engineers** 3
- **ENCE 310 - Intro to Environ Eng** 3
- **ENCE 411 - Environ Eng Science** 3
- **ENCE 412 - Environ Eng Unit Operation**
- **ENCE 422 - Proj Cost Acct. & Econ**
- **ENCE 431 - Hydrologic Eng**
- **ENCE 432 - Ground Water Hydrology**
- **ENCE 466 - Design of Civil Eng Systems**
- **ENCE Breadth Elective***
- **ENCE Breadth Elective***
- **ENCE Elective***
- **ENCE Elective***

### Geotechnical/Structural Engineering Track
- **ENCE 320 - Eng Project Management**
- **ENCE 340 - Fund of Geotechnical Engr**
- **ENCE 353 - Intro to Structural Analysis**
- **ENCE 441 - Foundation Design**
- **ENCE 444 - Exp Methods Geotech & Struct. Eng**
- **ENCE 454 - Design Concrete Structures**
- **ENCE 466 - Design of Civil Eng Systems**
- **ENCE Breadth Elective***
- **ENCE Breadth Elective***
- **ENCE Elective***
- **ENCE Elective***

### Transportation/Project Management Track
- **ENCE 320 - Eng Project Management**
- **ENCE 370 - Intro to Transpt Eng & Planning**
- **ENCE 402 - Simulation & Design of Experiments**
- **ENCE 422 - Proj Cost Accounting & Economics**
- **ENCE 423 - Proj Planning, Scheduling & Control**
- **ENCE 466 - Design of Civil Eng Systems**
- **ENCE 470 - Highway Engineering**
- **ENCE 472 - Transportation Eng**
- **ENCE Breadth Elective***
- **ENCE Breadth Elective***
- **ENCE Elective***
- **ENCE Elective***

### Requirements for Graduation:

- A minimum 2.00 cumulative UM GPA and satisfactory completion of all degree requirements are required for graduation.
- Students matriculating after Fall 2012 must have a 2.0 minimum GPA for all degree requirements, minor requirements, and undergraduate certificate requirements (Major courses are defined as: departmental courses, basic sciences, engineering sciences, specified degree tracks, technical requirements/technical electives and ENGL 393).
- A minimum of 120 credits is required to earn the degree.