Bachelor of Science in Civil Engineering Curriculum

Semester 1 – Fall (18 hours)
- **CAE 100 (2)** Engineering Drawing
- **CAE 101 (2)** AutoCAD
- **CAE 105 (3)** Geodetic Science
- **MATH 151 (5)** Calculus I
- **CHEM 124 (4)** Chemistry I
- **CAE 110 (1)** Intro to Prof I
- **HUM (3)**

Semester 2 – Spring (17 hours)
- **CAE 102 (2)** AutoCAD
- **MATH 152 (5)** Calculus II
- **PHYS 123 (4)** Physics I
- **CS 104 (2)** Computer Programming
- **CAE 111 (1)** Intro to Prof II
- **Human Sciences Course (3)**

Semester 3 – Fall (17 hours)
- **PHYS 221 (4)** Physics II
- **CAE 286 (3)** Structural Mechanics
- **MATH 251 (4)** Calculus III
- **CAE 221 (3)** Geology

Semester 4 – Spring (16 hours)
- **MATH 252 (4)** Differential Equations
- **CAE 287 (3)** Mechanics of Materials
- **CAE 312 (3)** Engineering Systems

Semester 5 – Fall (15 hours)
- **CAE 302 (3)** Fluids and Hydraulics
- **CAE 304 (3)** Structural Analysis I
- **CAE 315 (3)** Construction Materials
- **CAE 303 (3)** Structural Design I

Semester 6 – Spring (15 hours)
- **CAE 323 (3)** Geotechnical Engineering
- **CAE 307 (3)** Structural Design II

Semester 7 – Fall (18 hours)
- **CAE 470 (3)** Construction Estimating
- **CAE 457 (3)** Geotechnical Foundation
- **CAE 4xx (3)** Technical Elective 2
- **CAE 431 (3)** Steel Design
- **CAE 419 (3)** Transportation Engineering

Semester 8 – Spring (15 hours)
- **CAE 495 (3)** Senior Capstone
- **CAE 432 (3)** Concrete Design
- **CAE 4xx (3)** Technical Elective 3
- **CAE 4xx (3)** Technical Elective 4
- **FE Exam Register in February**

Total credit hours required: 131 (ABET accredited)

Legend:
- **CAE**
- **Math and science**
- **IPRO**
- **Pre-requisite**
- **Offered in the semester shown**
- **Offered Fall/Spring**

- **Co-requisite/ can be taken at the same time**
- **Offered in the semester shown**

**Human Sciences requirements:**
- 6 hrs of humanities (AAH, COM, HIST, HUM, LIT or PHIL) @ 300/400 level
- 9 hrs of social/behavioral sciences (ECON, PS, PSYC, SOC, SSCI)
- 6 hrs @ 300/400 level & 6 hrs from single field
- SSCI and PS are the same field; SSCI and SOC are the same field
- 3 hrs of any level either humanities or social/behavioral sciences

**Special Notes:**
- MMAE 200 can substitute for CAE 286
- MMAE 202 can substitute for CAE 287
- All technical electives must be CAE, EG, or ENVE 400- or 500-level