## Bachelor of Science in Civil Engineering

### 2013-2014 Catalog

**First Year: Fall**
- **ENGL 111X** – Methods of Communication 3
- **MATH 200X-Calculus** 4
- **ES 101** – Intro to Engineering 3
- **CHEM 105-General Chemistry** 4
- **DRT 210** - Intermediate CAD 3

**First Year: Spring**
- **COMM 131X or COMM 141X** 3
- **MATH 201X-Calculus** 4
- **CE 112-Elementary Surveying** 3
- **CHEM 106-General Chemistry** 4
- **ES 201-Computer Techniques** 3

**Second Year: Fall**
- **MATH 202X-Calculus** 4
- **PHYS 211-General Physics** 4
- **ENGL 211X or 213X** 3
- **ES 209-Statics** 3
- **Perspectives on Human Condition** 3

**Second Year: Spring**
- **MATH 302-Differential Equations** 3
- **PHYS 212-General Physics** 4
- **Perspectives on the Human Condition** 3
- **LS 101X-Library Info and Research** 1

**Third Year: Fall**
- **CE 334-Properties of Materials** 3
- **ES 301-Engineering Analysis** 3
- **ES 331-Mechanics of Materials** 3
- **ES 341-Fluid Mechanics** 4
- **Perspectives on Human Condition** 3

**Third Year: Spring**
- **CE 326-Intro. To Geotech. Engineering** 4
- **CE 341-Environmental Engineering** 4
- **CE 331-Structural Engineering I** 3
- **CE 302-Intro Transportation Eng.** 3
- **Technical Elective** 3

**Fourth Year: Fall**
- **CE 344-Water Resources Engineering** 3
- **CE 432- Structural Engineering II** 3
- **CE 490 - Civil Engineering Seminar** 0.5
- **Technical Elective** 3
- **Technical Elective** 3
- **Perspectives on Human Condition** 3
- **Perspectives on Human Condition** 3

**Fourth Year: Spring**
- **ESM 450-Econ. Analysis & Operations** 3
- **CE 438-Design of Engr. Systems** 3
- **CE 491 - Civil Engineering Seminar** 0.5
- **ESM 422 Engineering Decisions** 3
- **Technical Elective** 3
- **Perspectives on Human Condition** 3
- **CE 400-EIT Exam** 0

### Typical Schedule of Electives
- **CE 344-Water Resources Engineering**
- **CE 432-Structural Engineering II**
- **CE 490-Civil Engineering Seminar**
- **Technical Elective**
- **Technical Elective**
- **Perspectives on Human Condition**
- **Perspectives on Human Condition**

**Electives, all 3 credits**
- **CE 434 Timber**
- **CE 405 Highways**
- **CE 422 Foundations**
- **CE 442 Environmental Design**
- **CE 451 Construction Cost Estimating**
- **CE 603 Arctic Engineering**

**Complete 12 technical elective credits. Must include 3 credits in the field of environmental or transportation engineering, 6 credits of CE, ENVE or ESM courses, and 3 credits of either ES 307 or 346. Students should consult their advisor.**

**Up to two graduate-level courses may be used towards graduation. Graduate level courses must be approved by student’s semesters of graduation and have at least a 3.0 GPA to take graduate-level courses.**

**NOTE:** The ability to utilize computers for normal class work is expected in all engineering classes above the 100 level.
2013-2014 CATALOG
CIVIL ENGINEERING
B.S. Degree Requirements
134 Credits

GENERAL REQUIREMENTS

COMMUNICATION: (9)
ENGL 111X (3)____
ENGL 211X or 213X (3)____
COMM 131X or 141X (3)____

PERSPECTIVES ON THE HUMAN CONDITION: (18-22)
Complete the 6 courses listed OR 4 of those listed plus 2 semester length courses in a single AK Native or other non-English language or three semester length courses (9 credits) in American Sign Language.
ANTH 100X/SOC 100X (3)____
ECON/PS 100X (3)____
HIST 100X (3)____
ART/MUS/THR 200X OR HUM 201X
   OR ANS 202X (3)____
ENGL/FL 200X (3)____
BA 323 X or COMM 300X or JUST 300x or NRM 303X or
   PHIL 322X or PS 300X (3)____
Language option as listed above:
     ____ ____ ____
     ____ ____ ____
*MATHEMATICS: (15)
MATH 200X (4)____ MATH 202X (4)____
MATH 201X (4)____ MATH 302 (3)____

*NATURAL SCIENCE: (16)
CHEM 105X (4)____ PHYS 211X (4)____
CHEM 106X (4)____ PHYS 212X (4)____

LIBRARY & INFO SKILLS: (0-1)
LS competency test ____ OR
LS 100X or 101X (1)____
ES 307 or 346 (3)____ AND
     ____ ____ ____
     ____ ____ ____
     ____ ____ ____

*Designates only grades of "C" or better may be used to fulfill this requirement

MAJOR REQUIREMENTS

*1. Complete the following: (64)
   CE 112 (3)____
   CE 302 (3)____
   CE 326 (4)____(W)
   CE 331 (3)____
   CE 334 (3)____
   CE 341 (3)____
   CE 344 (3)____
   CE 400 (0)____(FE EXAM)
   CE 432 (3)____
   CE 438 (3)____(W/O)
   CE 490 (.5)____
   DRT 210 (3)____
   ES 101 (3)____
   ES 201 (3)____
   ES 209 (3)____
   ES 210 (3)____
   ES 301 (3)____
   ES 331 (3)____
   ES 341 (4)____
   ESM 422 (3)____
   ESM 450 (3)____(W)
   GE 261 (3)____

   Complete 2 designated (W) courses AND

   TOTAL TO DATE: ____
   TO BE COMPLETED: ____

   2. Complete 12 credits of technical electives. Must include 3 credits in the field of environmental or transportation engineering, 6 credits of CE, ENVE, ESM courses or approved technical courses, and 3 credits of either ES 307 or ES 346. Up to two graduate-level engineering courses can serve as technical electives if approved by advisor and the student must be within two semesters of graduation and have at least a 3.0 GPA.
   Credits for core/general requirements: 58-59
   Credits for major: 76
   Total credits required for degree 134-135