

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
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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
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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
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	16

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
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	18.5

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
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Second Year: Spring

MATH 302-Differential Equations	3
PHYS 212-General Physics	4
ES 210-Dynamics	3
GE 261-General Geology for Engineers	3
Perspectives on the Human Condition	3
LS 101X-Library Info and Research	1
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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
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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
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	15.5

Typical Schedule of Electives

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**

Electives, all 3 credits

- CE 406 Traffic
- CE 433 Concrete
- CE 445 Hydrological Analysis
- CE 435 Steel Bridge
- CE 424 Permafrost (odd spring)
- 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
_____(3)____
_____(3)____
_____(3)____

**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)____
CE 491 (.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