

**2004-05 CATALOG**  
**CIVIL ENGINEERING**

B.S. Degree Requirements  
 133 Credits

**GENERAL REQUIREMENTS**

**COMMUNICATIONS:- (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 323X 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)\_\_\_\_  
 \*Must earn a "C" or better

**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)\_\_\_\_

COMPLETE 2 DESIGNATED (W) COURSES AND  
 1 DESIGNATED (O) COURSE OR 2 COURSES  
 DESIGNATED (O/2) AT THE UPPER DIVISION LEVEL:

\_\_\_\_\_(W) \_\_\_\_\_(W)  
 \_\_\_\_\_(O) OR \_\_\_\_\_(O/2) \_\_\_\_\_(O/2)

**UPPER DIVISION CREDITS:- (39)**

Transfer Credits \_\_\_\_  
 UAF Credits (24)\* \_\_\_\_  
 TOTAL TO DATE: \_\_\_\_  
 TO BE COMPLETED: \_\_\_\_

\*a minimum of 24 UAF credits

Revised 9/9/04  
 (civl)

*\*Designates only grades of "C" or better may be used to fulfill this requirement (All CE courses and Technical Electives.)*

**MAJOR REQUIREMENTS**

**\*1. Complete the following:- (60)**

C.E. 112 (3)\_\_\_\_  
 C.E. 326 (4)\_\_\_\_(W)  
 C.E. 334 (3)\_\_\_\_  
 C.E. 344 (3)\_\_\_\_  
 C.E. 400 (0)\_\_\_\_(FE EXAM)  
 C.E. 402 (3)\_\_\_\_  
 C.E. 431 (3)\_\_\_\_  
 C.E. 432 (3)\_\_\_\_  
 C.E. 438 (3)\_\_\_\_(O/W)  
 C.E. 441 (4)\_\_\_\_  
 Drt 170 (3)\_\_\_\_  
 E.S. 101 (3)\_\_\_\_  
 E.S. 201 (3)\_\_\_\_  
 E.S. 209 (3)\_\_\_\_  
 E.S. 210 (3)\_\_\_\_  
 E.S. 301 (3)\_\_\_\_  
 E.S. 331 (3)\_\_\_\_  
 E.S. 341 (4)\_\_\_\_  
 ESM 450 (3)\_\_\_\_(W)  
 GE 261 (3)\_\_\_\_

**\*2. Complete 15 credits of technical electives. Must include 9 credits of CE, ENVE or ESM courses, 3 credits of either ES 307 or ES 346, and 3 credits of approved technical courses. Students should consult their advisor. Only 1 graduate-level course may count toward graduation as a technical elective.**

ES 307 or 346 (3)\_\_\_\_

AND

\_\_\_\_\_(3)\_\_\_\_  
 \_\_\_\_\_(3)\_\_\_\_  
 \_\_\_\_\_(3)\_\_\_\_  
 \_\_\_\_\_(3)\_\_\_\_

Credits for core/general requirements:	59
Credits for major:	75
Total credits required for degree	134

## BACHELOR OF SCIENCE IN CIVIL ENGINEERING

### First Year: Fall

ENGL 111X –Methods of Comm	3
MATH 200X-Calculus	4
ES 101 – Intro to Engineering	3
CHEM 105-General Chemistry	4
DRT 170-Beginning Autocad	3
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### 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: 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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### 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: Fall

CE 334-Properties of Materials	3
ES 301-Engineering Analysis	3
ES 331-Mechanics of Materials	3
ES 341-Fluid Mechanics	4
CE 402-Intro Transportation Eng.	3
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### Third Year: Spring

ES 346-Basic Thermodynamics or Technical Elective	3
CE 326-Intro. To Geotech. Engineering	4
CE 441-Environ. Engineering	4
CE 431-Structural Engineering I	3
Perspectives on Human Condition	3
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### Fourth Year: Fall

CE 344-Water Resources Engineering	3
CE 432- Structural Engineering II	3
ES 307-Elem. of Electrical Engineering or Technical Elective	3
Technical Elective*	3
Technical Elective*	3
Perspectives on Human Condition	3
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### Fourth Year: Spring

ESM 450-Econ. Analysis & Operations	3
CE 438-Design of Engr. Systems Technical Elective*	3
Perspectives on Human Condition	3
Perspectives on Human Condition	3
CE 400-EIT Exam	15

*\*Complete 15 technical elective credits. Must include 9 credits of CE, ENVE or ESM courses, 3 credits of either ES 307 or 346, and 3 credits of approved technical courses. Students should consult their advisor. Only one graduate level course may count toward graduation as a technical elective.*

NOTE: The ability to utilize computers for normal class work is expected in all engineering classes above the 100 level.