**MINING ENGINEERING**

B.S. Degree Requirements

132 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 3 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 201X (4)
- Math 202X (4)
- Math 302 (3)

**NATURAL SCIENCE:** (16)

- Chem 105X (4)
- Chem 106X (4)
- Phys 211X (4)
- Phys 212X (4)

**LIBRARY & INFO SKILLS:** (1)

- LS 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

**MAJOR REQUIREMENTS**

**A. Complete the following:** (67)

- Min 103 (1)
- Min 104 (1)
- Min 106 (1)
- Min 202 (3)
- Min 206 (1)
- Min 301 (3)
- Min 302 (3)
- Min 313 (3)
- Min 370 (3)
- Min 407 (2) (W)
- Min 408 (3) (O)
- Min 409 (3)
- Min 443 (3)
- Min 454 (3)
- Min 482 (3)
- Min 484 (2)
- Min 485 (0) (FE exam)
- Min 486 (0) (FE exam)
- Min 489 (1) (W+)
- Min 490 (2) (W+)
- E.S.201 (3)
- E.S.208 (4)
- E.S.307 (3)
- E.S.331 (3)
- E.S.341 (4)
- E.S.346 (3)
- G.E 261 (3)
- Geos 262 (3)
- Geos 332 (3)

*Must complete both courses to earn writing intensive (W) credit.

**B. Complete 6 credits of technical elective from the following:**

1. **Complete 3 credits from the following:**

- G.E. 440 (3)
- Min 401 (2)
- Min 447 (3)
- Min 472 (3)
- Min 481 (3)

2. **Complete 3 credits of technical elective approved by the Dept. Head:**

- ( ) (3)

Credits for core/general requirements: 59
Credits required for major: 73
Total credits required for degree: 132

(mine) 8/26/2008
BACHELOR OF SCIENCE IN MINING ENGINEERING

**First Year: Fall**
- ENGL 111X-Methods of Written Comm. 3
- MATH 200X-Calculus 4
- Min 103-Intro Mining Engineering 1
- CHEM 105x-General Chemistry 4
- Perspectives on the Human Condition 3
- MIN 104-Mining Safety & Operations Lab 1

**First Year: Spring**
- COMM 131X or 141X 3
- MATH 201X-Calculus 4
- GE 261-General Geology for Engineers 3
- CHEM 106X-General Chemistry 3
- MIN 106-Mining Operations 1
- LS 101X-Library Info & Research 1

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**Second Year: Fall**
- PHYS 211X-General Physics 4
- MATH 202X-Calculus 4
- GEOS 262-Rocks and Minerals* 3
- MIN 202-Mine Surveying 3
- Perspectives on the Human Condition 3

**Second Year: Spring**
- PHYS 212X-General Physics 4
- MATH 302-Differen. Equations 3
- ENGL 211X or 213X-Intermediate Exposition 3
- ES 208-Mechanics 4
- ES 201-Computer Techniques 3
- MIN 206-Mining Operations II 1

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**Third Year: Fall**
- ES 307-Elements of Electrical Engr. 3
- ES 331-Mechanics of Materials 3
- ES 341-Fluid Mechanics 4
- MIN 313-Intro. to Mineral Preparation 3
- Perspectives on the Human Condition 3

**Third Year: Spring**
- ES 346-Basic Thermodynamics 3
- GEOS 332-Ore Deposits and Structure 3
- MIN 301-Mine and Plant Design 3
- MIN 302-Underground Mine Environ. Engineer 3
- MIN 370-Rock Mechanics 3

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**Fourth Year: Fall**
- MIN 407-Mine Reclamation & Environ. Mgmt. 2
- MIN 443-Prin. & Appl. Industrial Explosives 3
- MIN 454-Mining Methods I 2
- MIN 489-Mine Design Project I 1
- Technical Elective* 3
- Perspectives on the Human Condition 3

**Fourth Year: Spring**
- MIN 408-Mineral Valuation & Economics 3
- MIN 409-Oper. Research & Computer Appl. … 3
- MIN 484-Mining Methods III 2
- MIN 490-Mine Design Project II 2
- Technical Elective* 3

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*Note: Students must choose one technical elective from GE 440, Min 401, 447, 472, 481, or 482. The other elective course should be planned in consultation with a mining engineering faculty advisor, and will have to be approved by the department head.