

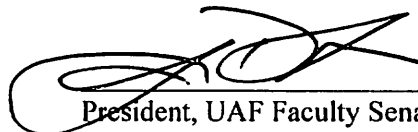
The following was passed at the April 5, 2010, Faculty Senate Meeting #166:

MOTION:

The UAF Faculty Senate moves to approve a Minor in Mining Engineering.

EFFECTIVE: Fall 2010 and/or
 Upon Chancellor's approval.

RATIONALE: See the program proposal #29-UNP on file in the
 Governance Office, 314 Signers' Hall.

 5 April 2010
President, UAF Faculty Senate Date

APPROVAL: 
Chancellor's Office

DATE: 4/6/10

DISAPPROVED: _____
Chancellor's Office

DATE: _____

Objectives and Purpose of the New Minor

The main objective of this new minor is to give non-mining engineering majors some background in mining engineering.

The proposed minor alleviates two major problems:

1. The shortage of skilled labor in the mining industry; and,
2. The availability of significant capacity in many mining engineering courses.

The mining industry worldwide has a severe shortage of trained personnel. The entire United States produces only about 100-120 mining engineers every year. Therefore, the industry often hires non-mining engineers and trains them. We asked mine operators in surveys if they would hire a "non-mining" engineer or geologist if they had a minor in mining engineering. They were strongly supportive of hiring "non-mining"

engineers/geologists that had the proposed minor because it saves them training time. Note that the industry currently hires “non-mining” engineers and geologists; but they play a limited role. In conclusion, the employers indicated that any engineering or geology major that had a minor in mining engineering would be significantly more employable in the industry than without. They, however, indicated that the minor would be very useful to them regardless of the major.

The second aspect of the minor is that it would increase enrollment in junior/senior level MIN courses that are currently under capacity. Most classes are non-lab based and, therefore, it is easy to bump up the enrollment without adding to the costs.

Proposed Minor Requirements:

1. Complete MIN electives at the F300-level or above—15 credits
2. Minimum credits required: 15 credits

Mining engineers are trained on a broad variety of topics since mining engineers are normally responsible for many aspects in a mine, such as mine ventilation, ground control, mine operation, economics, environmental laws and labor management. The minor will allow non-mining engineering majors to pick topics within mining engineering courses that are of interest to them as we will not restrict them to any specific courses. Two examples of course sequences are given below:

Here is a sequence (prerequisites are in parentheses):

MIN 301 (ES 208 & ES 307)
MIN 313
MIN 370 (ES 331)
MIN 407 (CHEM F106X; ENGL F111X; ENGL F211X or ENGL F213)
MIN 409

For engineering majors, the above is exactly 15 credits as they will have met other prerequisites.

Another sequence:

MIN 370 (ES 331)
MIN 407 (CHEM F106X; ENGL F111X; ENGL F211X or ENGL F213)
MIN 408
MIN 409
MIN 443 (MIN 370)
MIN 482

Relationship to the “Purposes of the University”

UAF's Academic Development Plan (2007-2012) states this goal at UAF: “Produce

graduates who are job-ready in areas of high employer demand, and conduct training and research applied to the development, planning, and management activities of the State”. The proposed minor in mining engineering feeds directly into that since it produces graduates that will be in high demand in a key industry in this resources state.

Need for the minor

As stated earlier, the mining industry has a severe shortage of skilled labor, especially mining engineers. The industry resorts to hiring non-mining engineers and then training them to fulfill mining engineering roles.

Mine operators around the state such as Usibelli Coal Mine, Barrick Gold etc were surveyed on their acceptability of the proposed minor. Their response was clear: they see the minor as a positive development. All respondents thought that a “non-mining engineer” was a lot more employable with the proposed minor than without.

Projections

The number of undergraduate MIN majors currently stands at 25. We expect 5 students to enroll in the minor. The minor will be a success even if we get one student since it is at no cost.