

New Mexico Tech
Industry Advisory Board Meeting
December 10, 2008
Teleconference
Minutes

Present: Jeff Corey, John Crum, Jay Paul McWilliams, Gary Plisga
Thomas Engler, Karen Balch

1. IAB Member Ratification

Dr. Engler sought approval for the new members:

John Crum, Apache
Warner Williams, Chevron
Brett Wendt, COP

The new members were approved. Thanks to Tracy Darr Van Reet, Jim Lovato, and Matt Stanley for their time and effort on the IAB.

2. Department Update

Student enrollment is up with approximately 90 students total. There has been an increase in the last two years, especially within the last year. The momentum and increase is positive along with good graduate placement.

Faculty development- There hasn't been a change in faculty. We have five professors: 4 ½ FTE (Bretz is ½ Chemical Engineering). We need to improve in this area.

3. Department needs

New Mexico Tech is the only petroleum engineering program compared to the other US schools that has not increased faculty. Further, the board was notified about the hiring and salary freeze at NMT. Discussion included the addition of a John Kelly/Alumni Endowment which will be used to support a faculty position; however, the fund will not support an entire faculty position. It will take approximately \$1.8-\$1.9 million to fully fund the position through the endowment. At this time, the administration has agreed to support the hiring of the endowed position.

A good list of candidates has applied to the announcement for the faculty position. The faculty committee will review the applications and initiated interviews in January, 2009.

How can we convince alumni and companies to support the endowed chair for full faculty support? Board feedback: weak timing, companies are cutting back their budgets dramatically. **Action item [dept]:** advertise to alumni to contribute to the fund. Make personal calls, solicit class gifts (graduating students to give to department).

Equipment for the department is our number one priority. We have labs and computers outdated, needing upgrades. **Action item:** Jeff Corey to investigate status of department request to COP last September.

Graduate support is second on our list of needs.

Action item [dept]: Develop a powerpoint presentation to submit to industry and alumni, including pictures of students, what our needs are, and what we are doing.

Travel-this is a concern after travel budgets were cut drastically. Our faculty might not have the means to attend conferences, etc.

4. ABET

The current program educational objectives (PEOs) are listed below.

1. To educate an individual to be a petroleum engineer who is competent in drilling and completions, production, and reservoir evaluation.
2. To develop the graduate's ability to analyze open-ended problems and design solutions for petroleum engineering and related disciplines, understand the associated uncertainties and to evaluate the societal impact.
3. To prepare a graduate to meet the challenges of the future petroleum engineering profession.
4. To promote effective oral and written technical communication skills.
5. To prepare graduates with engineering fundamentals to work effectively in industry.

A 2004 ABET white paper better defined the difference between objectives and outcomes; subsequently several of the NMT PEOs are no longer acceptable. It was proposed to reduce the PEOs by eliminating the last phrase in 2 and all of 3, 4, and 5 (Highlighted in yellow above).

Rationale for the proposed changes are that:

- a. The last phrase in PEO No. 2, "...and to evaluate the societal impact..." does not fit with the intent of the objective and is proposed to be eliminated.
- b. PEO No. 3 is a restatement of the program's mission statement and thus does not belong. The program's mission statement reads, "*The mission of the Petroleum Engineering program is to prepare students for the challenges of such a diversified career by providing students with the necessary skills to achieve success in their future profession.*"
- c. PEO No. 4 suggests too strong an emphasis on the communication aspects.
- d. PEO No. 5 is redundant to PEO No. 2 which includes "related disciplines".

Discussion with the IAB members followed. The IAB members unanimously agreed that communication skills are important and should be included in the programs objectives. Several

members cited that 50 to 75% of an engineer's work is effectively communicating to others. Subsequently, the following PEOs are proposed to be adopted.

1. To educate an individual to be a petroleum engineer who is competent in drilling and completions, production, and reservoir evaluation.
2. To develop the graduate's ability to analyze open-ended problems and design solutions for petroleum engineering and related disciplines, understand the associated uncertainties and to effectively communicate their ideas to others.

5. Date/time of next meeting

1. **Friday, May 1, 2009 in Socorro**

The Langdon B. Taylor Banquet and Senior Design Presentations are both Friday, the golf tournament will be either Friday or Saturday.

2. ATCE, October, 2009, in New Orleans.

5. Adjourn