

# **Minutes of the SDSM&T GGE Advisory Board Meeting**

**September 26, 2015**

**Board Members present:** Steve O'Rourke (Acting Board Chair), David Hammond (Board Secretary), Bill Siok, Janet Carter, Greg McDonald, Sherwin Artus, Paul Murphy, Tom Bidgood

**SDSM&T Administration present:** Heather Wilson (President), Dimitris Kouris (Provost & VP for Academic Affairs)

**GGE Faculty present:** Laurie Anderson, Nuri Uzunlar, Foster Sawyer, Zeynep Baran, Maribeth Price, Christina Belanger, Sally Shelton, Ed Duke, Liangping Li, Christopher Pellowski, Kurt Katzenstein, Darrin Pagnac, Larry Stetler

**SDSM&T Foundation representatives present:** Joel Kincart (President), Ron Jeitz

**Welcome, Introductions, Minutes and Meeting Agenda Review:** Steve O'Rourke served as Acting Board Chair in place of Board Chair Paul Ching who could not attend the meeting. Steve called the meeting to order at 9:30 am. He introduced new AB members Janet Carter and Greg McDonald, Provost Kouris and Foundation President Joel Kincart. Joel made a brief thank you to the Board for the support it has given to the Department and for member contributions to the Foundation. Dr. Kouris made brief remarks about university financial situation and fall enrollment numbers; overall there has been a decrease in freshman enrollment with in-state numbers falling and out-of-state increasing. Female student enrollment is strong and they show better retention statistics as well as tend to graduate earlier. Issues continue with target graduate student numbers and graduation rates. Much of the problem appears related to noncompetitive stipend levels. Dr. Kouris described the more effective graduate situation at the University of Wyoming with which he is familiar. He then responded to AB member questions on reasons for the freshman enrollment decline and recruitment of SDSM&T undergraduates for entry to the School's graduate programs. Regarding the recent Jobs Fair, he thought everything went very positively, although data on employer attendance was not yet available.

**Department Update:** At 9:23 Steve tuned the meeting over to Laurie for her update on Department activities and accomplishments. She began with a description of the folder materials provided to AB members, followed by review of Department activities since the April meeting. A major highlight is the upcoming Mineral Industries Day scheduled for October 16th, and which has been initiated and organized solely by the GGE, Mining and Metallurgical students to promote the three Departments housed in the MI Building and provide opportunities for other SDSM&T students to learn about geology, geological engineering, mining engineering and metallurgical engineering. The student organizers have had great success in getting companies to participate, with over 15 major firms planning to be there.

Laurie described department enrollments for the current semester—GEOLE is down by about 7% over last year while GEOL is up by about the same amount. MS program enrollments

continued to decline, and show a 30% fall-off over the past 5 years. This drop is of concern, although Maribeth noted that declines could be due in part to stiffening of admittance standards. Also many undergrads are going directly into industry rather than entering graduate programs, a situation which may well change with the commodity price declines now being experienced globally. In response to an AB question Laurie responded that the GGE Department controls admission standards for grad students. She also noted that GGE was tardy in getting out offers last year due to late arrival of information on what funds that would be available for graduate students. Discussion ensued regarding what level of stipend is competitive for graduate Teaching and Research Assistants. Steve asked what is needed to get graduate students to enroll at SDSM&T and observed we don't have a fundraising goal established; maybe that would help. Laurie broke down numbers by funding source—research grants, State funds, and Foundation contributions; but not much from industry. Provost Demitris commented that "named" scholarships would be very desirable in addressing these needs.

Other highlights in Laurie's review were:

- Placement rates for 2013-14 BS graduates were 100% and starting salaries continue to be the highest among SDSM&T programs, however GEOL and GEOE reversed positions with GEOL students commanding the highest school average in this period.
- Outreach & Recruiting: In addition to the student organized MI Day described above, Youth Camps are back with events scheduled for June and July of 2016.
- Energy Resources & Petroleum Systems: The Petroleum Systems Certificate Program is well underway with a 12 credit requirement from a menu of six courses. The first Petroleum Systems field camp was conducted this past summer and was fully subscribed with 20 students. It was very successful and a big thanks is extended to Whiting Petroleum for its incredible support.
- Faculty News: Tim Masterlark has been promoted to Full Professor and Liangping Li was introduced as the new geological engineering Assistant Professor specializing in groundwater. An interview for the ERI Director position is scheduled for early October.
- Museum Projects: Efforts include digitizing/imaging records and getting them online for research by other specialists. Greg commented about the very strong relationship between the National Parks Service and the SDSM&T paleontology program and Museum.
- Facilities: A status update was provided for the Mineral Industries Building renovation project; new LED lighting is being systematically installed in display cases at the Geology Museum; in a partnership with consulting services company RESPEC a state-of-the-art rock mechanics press has been procured as replacement for the existing 50+ year old machine.

Laurie concluded her presentation by outlining the Development Goals for GGE and MSM, and prioritized those most critical and which will have greatest impact on students and programs.

Nuri then reviewed the status of the Black Hills Natural Sciences Field Station activities. The past season was again a very successful one: 258 students from 107 different institutions attended 15 individual courses, which were delivered by 38 contract faculty. Courses were sited in 10 major geological locations across the world. The BHNSFS offerings in geoscience field instruction have grown substantially from 37 students in 2005 to an anticipated 300 plus during the coming 2016 season, with revenues of over \$1 million in 2015. The station has now captured over a 10% market share and plans to add new camp locations in northern Spain and Dillion, Montana.

Larry provided an update on preparations for the ABET reaccreditation review for Geological Engineering during the 2016-2017 cycle. The Self Study Report is coming along and on schedule for completion by the end of May target. Three assessment surveys are currently underway.

Laurie then introduced Mike West, Head of the Department of Materials and Metallurgical Engineering, and Lance Roberts, Head of the Department of Mining Engineering and Management. Together with GGE, these three departments housed in the MI Building are working closely on the integrated design and funding for the MI renovation project. Lance went over the presentation for raising donations. So far the plan has been well received by industry, especially considering the current economic condition of the extractive industries. Discussion ensued regarding the integrated concept, its uniqueness among resource universities, and use of funds that hopefully will be raised. The potential economic impact on the State was noted--the Mineral Industries departments, their research and students are a draw for companies, who then also look at other engineering students. After these presentations the AB toured the Mining and Metallurgical lab facilities, looking at both the new and obsolete equipment.

The meeting was adjourned at noon for lunch.

Steve reconvened the meeting at 12:53 PM following the break for lunch. Ron Jeitz gave an update on fund raising progress for the ERI; to date \$2.5 million has been pledged, and more importantly, dedicated funding for the critical Director position to lead the Institute are now in place. Interview of the first Director candidate will be conducted next week. A comment was made that with the present downturn in the energy sector and resulting company mergers, opportunities may develop to acquire surplus lab and other research equipment needed for the ERI facility.

Ed asked if, in view of the downturn in energy prices, any oil and gas companies will be attending the upcoming Career Day. Steve & Ron responded that they would and Laurie provided a list in the handout package of specific companies who have indicated they will be looking at Geology and Geological Engineering students at the Career Day function. Maribeth asked the AB members for industry input concerning possible changes in graduate program requirements, such as offering a non-thesis option. She would like to get a better understanding of what industry really prefers.

## **IAB Business Meeting:**

After departure of GGE faculty except for Laurie, Steve opened the AB business meeting at 1:30 PM. Each board member introduced him/herself and briefly described their background and affiliation. At this point President Wilson stopped by to make a few comments. She said that fall semester enrollment for SDSM&T overall was up slightly with a 1.6 % increase over last year. Enrollments at all other South Dakota public universities are down. SDSM&T students are about equally split between in-state and out-of-state. The reputation of Mines continues to grow and is attributed to (1.) academic reputation for serious and challenging studies; (2.) the personal attention to students and their welfare by both faculty and staff; (3.) the significant opportunities for professional internships (during past academic year 78% of students had paid internships); and (4.) SDSM&T continues to be the best economic proposition for a university education in the nation considering the low cost and demonstrated high future income potential. Freshman enrollment numbers are down this semester and are a matter of concern. South Dakota high school demographic trends are part of the problem but the school also outran its capacity to offer scholarships verses resources available at other SD universities. Dr. Wilson noted that an incoming cohort of 650 freshman each year is needed to support a continuing school enrollment of 3,000 students. Student advising and basic mathematics are current foci of the institution's quality improvement efforts. Incoming students are not adequately prepared for engineering, math and science, particularly those graduating from SD high schools. With support of the State Legislature and Board of Regents the School is initiating new math education initiatives, such as college focused algebra for SDSM&T students, which high school students can take for credit. Tuition for such is currently subsidized by the State and is very nominal at \$45/credit hour.

Dr. Wilson described current efforts to strengthen the School's research activities. The number of PhD graduates is nearing the level typically associated with Tier One research institutions. She then provided an update on plant and facilities improvements. Renovation and upgrade projects for the McLaury and Chemistry buildings are immediate priorities. The pending major refurbishment of the Mineral Industries Building, which is in the preliminary design and fundraising phase, is the largest capital project on the current slate for the State's university campuses.

President Wilson opened the floor for questions. Bill S. asked about undergraduate retention rates. Dr. Wilson said the goal is 83% but is currently at 78%. This is the highest in the State but that is clearly a function of the higher admission requirements in place for SDSM&T. Ron asked about the breakdown between merit versus needs-based scholarships; 30% of students receive Pell Grants. Dave asked for additional information on the math initiatives and board members as a group recognized poor math education is a major problem afflicting US high schools everywhere.

Steve resumed the Business Meeting after Dr. Wilson's remarks with continuation of Board introductions.

Old Business:

1. Following approval of the GGE Advisory Board Member Expectations document at the April 18, 2015 meeting, member Barb Beasley identified restrictions which any federal government employee would be subject to in meeting certain of the listed expectations. These restrictions involve prohibitions regarding advocacy activities by federal employees. The Board officers and Laurie concluded that language needed to be added to the Expectations document, distinguishing the role Federal Employees play on the Board as opposed to that of private sector, academic, and retired members. Text was developed to reflect this difference, so that the role of Federal Employee members is clearly identified as "Technical Advisors" to the Department and not as "entity ambassadors." The Member Expectations document with this language added was submitted for a re-approval vote, which was unanimous.

New Business:

1. Steve brought up for discussion the need for a timely assessment of AB performance and the value, if any, that the AB was contributing to the Department. The reorganized AB has been in existence for three years and has originally promised, it is time for both self and external performance assessment to understand how the AB is viewed by faculty, what it has actually accomplished for Department welfare, how is it helping student experience, etc. A suggestion has made that a survey questionnaire regarding faculty feelings might be a good way to provide information for the assessment. Dave made a motion for construction and distribution of such a questionnaire, second by Janet. Motion passed unanimously. Steve volunteered to coordinate the effort and requested that members submit ideas on appropriate questions to him by Oct. 31st. He and Laurie will then finalize and distribute to faculty.
2. Steve asked Laurie to review the current department budget. This initiated an extended discussion about the Foundation and its functions/operations, delegation of duties, interaction with all institution programs, etc. Ron provide information and answers to these.

The next meeting of the AB was scheduled for Saturday, April 9, 2016.

Steve asked if there was any further business to be discussed and there being none requested a motion to adjourn. Motion was made by Greg with second by Paul. Motion carried and the meeting was adjourned at 3:10 PM.

Respectfully submitted,

David R. Hammond  
GGE Advisory Board Secretary