

## **Minutes of the SDSM&T GEOE/GEO/ PALE Advisory Board Meeting September 18, 2014**

**Board Members present:** Steve O'Rourke (Board Chair), Sherwin Artus, Jeanne Goodman, David Hammond (Board Secretary), Paul Nelson, Stuart Buchholz

**Faculty present:** Laurie Anderson, Nuri Uzunlar, Foster Sawyer, Kurt Katzenstein, Darrin Pagnac, Ed Duke, Chris Pellowski

**SDSM&T Foundation representatives present:** Ron Jeitz

**Welcome, Introduction, Minutes and Agenda Review:** The meeting began 9:05 AM with a welcome by Laurie Anderson. Laurie reviewed logistics for the meeting room, schedule and the contents of the meeting folder. The meeting was then formally called to order at 9:07 AM by Advisory Board (AB) Chair Steve O'Rourke.

Steve welcomed all meeting attendees and introduce new AB members Paul Nelson and Stuart Buchholz. He then reviewed the meeting agenda and asked for approval of minutes for the April 27, 2014 AB meeting. After submission of two minor changes, a motion for approval was made by Dave with second by Jeanne. Steve then led a discussion on AB membership duties and expectations, geographical distribution of members, attendance and travel issues experienced by some members, what to do about non-participation and the need to recruit new members. Steve next reviewed activities in the Department over the summer with focus on the recent Board of Regent's approval of the Petroleum Systems (PS) minor, which will be administered by the Department and available for all science and engineering students at SDSM&T. He also noted the next University capital campaign and need for AB support of the initiative.

**Department Update:** Laurie reviewed the current status of the Department:

**Students:** Enrollment numbers are up again for the Fall semester, and have increased 75% over the past 5 academic years. Geological engineering enrollments have grown by 104 % during this period. While faculty doesn't have much control over entry numbers, there is real need to focus on student retention beyond the freshman year and move the graduation rate from 50% up to at least 60%. The Department has 41 graduate students enrolled this term, representing a 23% increase since 2008. Laurie reviewed placement from the Spring 2014 term, noting continuation of the 100% rate for GEOLE seniors, as well their continuing position as the having the highest average starting salaries of all SDSM&T bachelor's programs.

**Grants & Contracts:** The Department submitted proposals during FY 2014 for \$3.4 million, with awards totaling \$1.2 million. The latter represents an over six-fold increase since FY 2010.

Energy Resources & Petroleum Systems: Department efforts since the last IAB meeting have focused on development of PS minor curriculum which is being initially offered during the current Fall 2014 semester and available to all students at SDSM&T. Foster described the donation of TGS seismic data and plans to utilize it. He also mentioned the grant for resources research on Rosebud Reservation and the shale coring program now underway. Ron Jeitz described interest by Occidental Petroleum Corporation and their Oman employees in the PS certificate program and also Baker Hughes' interest in funding specific research projects as way to support the PS minor and the Department's ERPS systems activities. He also described the present Foundation initiative with Apache Corporation which have been facilitated by Frank Richardson.

Petroleum Systems Certificate: Planning is underway on a Certificate Program in Petroleum Systems. Laurie described her market research which identifies at least 11 other schools who currently offer some kind of similar specialized training to the oil & gas sector. The PS minor at SDSM&T however appears to be unique with the University of Tulsa being the closest in structure. Laurie identified four universities which provide potential models for the PS/PSC program.

Energy Resources Initiative (ERI): The ERI, which involves both teaching and research to address the needs of the upstream and downstream petroleum industry, was formally announced this past summer and program and funding progress was described by Laurie. Initial funding is in place through donations from Sherwin Artus, Whiting Petroleum and Joe Kulik. The Department will also apply for a grant through Schlumberger in Spring 2015 to renew software licenses, with an estimated in-kind value of \$49 million.

Mineral Industries Building Renovation: Laurie reviewed the conceptual design for the major renovation project which is expected to cost \$14-17 million. The planning phase is underway with budget of approximately \$130,000. This cost is to be allocated across the three MI departments after a \$30,000 contribution by the President's Fund. The GGE Department will be responsible for \$10,000, which it currently does not have budget for. The renovation concept envisions placing all faculty for the 3 departments on the third floor, with classrooms consolidated to the second floor and labs on the first.

Field Station & Youth Camps: Laurie and Nuri briefly described the summer's experience and planning for the next year. All camps continue to experience great success, with the nine courses now operated at the professional level by the Black Hills Natural Sciences Field Station becoming the premier field experiences for students globally. Registration slots are typically filled very quickly. A Petroleum Field Camp has been added and will conduct its initial class next summer.

Faculty Development & Hiring: Following Laurie's description of unsuccessful searches during 2013-14 regarding new positions for petrology and geophysics faculty, there was a general discussion about position search processes, forums and decisions the Department has had to make. Two searches are planned for 2014-15 for geophysics and groundwater engineering.

ABET Preparation: Kurt updated the Board on progress of preparation for the next ABET accreditation General Review upcoming in the 2016-17 cycle for the geological engineering program. Things are proceeding well for the program Self Study Report with student outcome assessments and surveys in place and changes made to the student advising process structure to emphasize course pre-requisite conformity.

Board members and faculty next had a open discussion concerning the professional certificate program with attention to industry demand for such education, the subject matter industry needs and prefers, and the capacity of the Department faculty to provide such education from standpoint of time and expertise.

Following the lunch break Mary Beth Price reviewed the response regarding the Program Review of the Geology BS conducted by Dr. Joseph Hartman during the 2013-14 academic year. For this the Department conducted an in-depth self study and hosted a campus visit by Dr. Hartman in April 2014. He concluded that the Geology undergraduate program is strong and moving forward. He also provided recommendations in a number of areas such as strategic planning, student involvement in program governance, field camp alternatives, curricula and faculty development. The Department's formal response to to Dr. Hartman's report was provided to IAB members.

**IAB Business Meeting:** Steve began the Board business meeting at 1:45 PM. Review of old business began with discussion of the purpose and function of the various committees established at time of the AB reorganization in 2012. The second item was review of how the AB can best assist the Department and programs with raising support resources. Dave suggested that the AB members commit as a group to providing the \$10,000 which has been allocated to the Department as its share of funding for the preliminary architectural design of the Mineral Industries Building renovation. Other areas of possible support were identified as follows: (1) a list of industry speakers who could give lectures in certain courses as desired by faculty, (2) support for field camp in the form of student scholarships, (3) defining other specific needs by the Department and communicating such to the AB, (4) identification of corporate organizations who would be good candidates to approach for support of the ERI, and (5) AB member participation and responsibilities--role, effectiveness and accountability.

New business items discussed were: (1) the desirability of having at least one of the AB members attend the Rocky Mountain Rendezvous next year, and (2) AB involvement and support of the University's new capital campaign, especially in identifying industry executives to contact.

A closed session discussion of the AB began at 2:45 PM with Steve moderating. Discussion was held regarding the problem of Board member participation and how to keep members involved. The possibility of reducing the Board size was suggested but rejected as counterproductive to the AB purpose. Jeanne recommended sending the today's meeting board packet and minutes to the non-participating members. Another possibility is sending a quarterly report prepared jointly by Laurie and the IAB president to all members. The possible commitment by the IAB to raise the

\$10,000 required for the Minerals Industries Building remodel preliminary design was revisited. Dave made a motion that such action will be an item for formal approval at the next AB meeting and that notice of such plan will go to all members via the current meeting minutes and/or a separate email. Sherwin seconded and motion carried with amendment that if needed before the next meeting, resolution approval could be obtained via email. Ron Jeitz suggested that the Board should consider approaches to effecting participation of other departments, especially Mechanical Engineering, in advancing the PS minor across other programs. Steve will discuss this with Larry Pearson. Steve then initiated a discussion concerning election of AB officers (Chair and Secretary) for the 2015-2016 term who will be nominated and voted on at the next meeting. He indicated that while he has been very happy and honored to serve the past three terms as AB Chair, he does not view his role as being chair-for-life and hopes other members can take on the responsibility. A consideration raised in the discussion was the value to Laurie and the Department of having the AB Chair living in or close to Rapid City, to facilitate communications and in-person activities with the AB. One possibility could be to add an office to the AB executive committee, such as a co-chair or local AB liaison, who is resident in western South Dakota and who could provide such direct communication on behalf of the AB Chair and members. Further discussion on this issue to be held at the next AB meeting.

The next meeting of the AB was set for Saturday, April 18, 2015.

Motion to adjourn was made by Jeanne with second by Dave. Motion carried and Steve closed the meeting at 3:10 PM.

Respectfully submitted,

David R. Hammond  
IAB Secretary