

Minutes of the SDSM&T GGE Advisory Board Meeting

September 17, 2016

Board Members present: Paul Ching, David Hammond, Steve O'Rourke, Jeanne Goodman (Board Chair), Barb Beasley (Secretary), Greg McDonald, Janet Carter

SDSM&T Administration present: Heather Wilson (SDSMT President)

GGE Faculty present: Laurie Anderson, Foster Sawyer, Zeynep Baran, Maribeth Price, Christina Belanger, Sally Shelton, Ed Duke, Liangping Li, Kurt Katzenstein, Larry Stetler, Tim Masterlark, Arden Davis

SDSM&T Foundation representative present: Ron Jeitz

Welcome, Introductions, and Meeting Agenda Review: Jeanne called meeting to order at 9:10 AM in the Classroom Building 205E and then turned the meeting over to Laurie for the GGE Department review and update. She went over the agenda for the day and identified priority topics to be discussed. Following adjournment of the closed AB meeting in the afternoon four subcommittee meetings will be held, one regarding Museum activities and the others to discuss the geological engineering program's preparation for the up-coming ABET accreditation review, Field station PRL or MI, or outside, other meetings.

Laurie introduced President Wilson who provided the institutional update.

- (1) Dr. Wilson began by sending out cudors to the department for exceptionally good news; placement is soft in energy, mining, and agriculture, and agriculture equipment. For 5 straight years the department has had 98% placement at over \$63k annual salary.
- (2) Enrollment is flat. The Enrollment Committee is already starting building for next year's freshmen class. The University continues to work with the Board of Regents to keep in-state and out-of-state student tuition flat or reduced. The University is starting to see a shift in bringing in students from out-of-state and internationally.
- (3) Colorado in-state rates went up, so now SDSMT tuition is now lower than Colorado's in-state tuition. University has sent proposals Board of Regents to keep in and out of state tuition the same for another year.
- (4) 20 years ago it was not an advantage to SDSM&T of getting out of state students; now it is more than half out of state students including international.
- (5) This fall the freshman class coming in has an average of 3.5 GPA; 70 freshman athletes average 3.7 GPA.
- (6) Retention rate of the freshman students was higher last year which is attributed to a new pilot program for math. Mines' math courses are much more intensive and seems to be

a stumbling block for freshman student retention The pilot program includes pre-work before the students arrive on campus and is showing a 5% increase in retention. If we can get them to be successful in the first year of math, there are positive effects on the rest of their education.

- (7) Cudos to Foster, Tyler Rust, and 1st Fulbright recipient David LaFort.
- (8) A site visit to Ranch A was a joy for her to do.
- (9) Three new dorms have been constructed in the last 5 years. The Chemistry Building will be done by December.

Questions of Dr. Wilson:

- (1) Larry requested clarification on what freshmen she was referring too; which was this year's freshmen. Dr. Wilson also confirmed that work was now starting to build for next fall (2017) students, a 52 week process. The good news is students that come here love it and tend to enroll at a smaller but more focused curriculum university. Thirty-seven states are represented at Mines.
- (2) There were questions regarding the math issues from high schools. 60% of freshmen are ready for Calculus 1 and 2; however a lot of students come from small high schools where there may not be a strong Math teacher. Math goes twice as fast here. Time management and study skills come into play as most 'B' students don't have to crack a book in high school. We expect the students to master the knowledge and master what is difficult. It is not our job to wash out students but bring their skills to the appropriate levels. Hence, the Math Pilot project includes an assessment piece; there is an accounting portion, which lends itself to be continually funded/supported.
- (3) 'Mines on the Road' is a large chunk of time dedicated in January across South Dakota, Denver, Omaha, Phoenix, Houston, and Fort Collins. Alumni, the President, and current local students are invited. Alumni and current students have more credibility than the President does, because the parents are hearing the actual alumni achievements.
- (4) There was a question about the financial situation Dr. Wilson inherited. She said that because she forgot to address, it is a good sign. The budget balanced for the last 2 years due to the shared nature of the problem, and some departments did not spend what was allocated, resulting in a quicker recovery. The University is well on the way of recovery and able to re pay the Board of Regents by the end of December 2016. The objective was to protect teaching and research and avoid overhead costs.
- (5) Cost of inflation and salaries were borne by taxes. 22% of the state's education is funded through taxes, which is a good investment for the State.

- (6) What was the outcome of the Alumni Foundation survey, and what do the alums? want from the Alumni? Board? The Foundation is now looking at next steps to set up of partners and teams.
- (7) Does rumor control too, in job description.
- (8) Dr. Wilson thanked the members and faculty staff for attending; the Advisory Board is labor of love and willingness to come to help the department be better.

GGE Department Key items Laurie described were:

- Student scholarship awards and faculty promotions/recognitions, and moving of faculty to assist with openings of sabbaticals.
- Available online...since 1957 placement of degreed programs is 100% placement despite softness in industry. Students have more opportunities for internships.
- Discussed faculty and staff research and grants.
- Accreditation process for the SDSMT Museum of Geology by the American Alliance of Museums (AAM) is making good progress; with core documents submitted, next steps are self-study preparation and campus visit by AAM.
- The search for ERI Director is being rebooted. Field camp is focusing on petroleum, fracking and logging, getting industry grade seminars at the field camp.
- Summary of development gifts, in kind gifts, new Lisenbee endowment; MI building and still working to get equipment for geo-mechanics lab; pledges still out; museum received endowed and working on the Foster endowment. Lots of needs and lots of priorities to match needs and student passions.
- **Field Camp Update by Nuri:** Talked about three new proposed field camp locations in South Africa, Morocco (hiring faculty with work permit), and Scotland; these will be 3-5 week geo field camps. In 2016: 18 courses offered, 11 locations, 302 mostly US students; 38 PhD faculty; 7 TAs; 1,389 credits, and \$1.4 million in revenue; 10% expenses, 107 high school students. Nuri is doing administration including logistics, purchasing and helping with budget and flying worldwide to resolve issues. The expenses consisted of 10% left behind were used for foundation for next year. Also, field camp expenses pay for GSA students' expenses/hotel. Discussion led to field school attendance is decreasing nationally while the BHNSFS enrollment was 302 students. This compares to the next closest enrollment at University of Michigan with 135, to the lowest enrollment at California State University at 37, with the remaining 90 schools having less than 30 students. He is proposing fees that are enough to support another position to backfill. He will create a narrative proposing to build a succession plan to continue providing field camps. He also discussed the issues for building a field school since Ranch A availability for the field school is lessening, due to renting the facility out to anyone.

- Can the AB help Nuri and get assistance? Laurie, the finances are there to support it. Just need permission to hire; the program is self-supporting.
 - Nuri will bring up the request again, perhaps Nuri should provide a narrative for the program. Nuri needs administrative/clerical assistance.
 - Dr. Greg MacDonald suggested a letter from the AB to recommend and recognize the importance, plan of succession, and publicity to SDSM&T.
 - Also brought up a program to train high school and middle school teachers by taking advantage of NSF funds.
 - Also, requesting AB for support to build a field camp for \$1 million in Nemo or Spearfish would work and would be available for other usage. Needing few isolated acres for buildings. Zoning issues have not been looked into yet.
- **ABET Update: Larry Stetson** discussed the tasks remaining and that at the time ABET was 5 weeks away Oct 23-25. A program evaluator, Jeff Keaton, had been named and was in the process of viewing background information. Larry expects a positive feedback experience and predicted a smooth visit. Larry is hoping that issues already brought up are now no longer deficiencies, and he hopes that the next year will be working on accreditation. Cudos to Kurt for stepping up and taking the accelerated training.
- **Foundation Update:** Ron reported the Foundation Goal is to raise \$4 million and be self-sustaining to attract research funding, *etc.* Funding is in place for the ERI director, . Half of the funds would go to research and equipment for labs and the other half to scholarships; there are some endowed funds. Ron discussed non-endowed funds be set up for gifting for immediate use, then have immediate award to students. Discussed the Kingdom Suite software in seismic and if interested in a new system, PC based and user friendly. TGS is willing to include into ERI and the need to address computer capability and hardware upgrades to keep up with the software. Slumberger may have equipment laying around. Introduction to Halliburton through Dr. Wilson and make plea for in kind gift for lab equipment.
- **Foster:** Teaming up with Mining program and out growing the classroom space. Share computer labs between the two programs with air conditioning and are finding solutions to upgrading equipment. Hoping during Baker-Hughes visit they will see the ancient equipment and offer new equipment. Computer Lab has 15 seats, but effort has now outgrown the lab. Idea is to share the 24 seat lab and the 15 seat lab with benefits to both units and to use the rooms more efficiently.
 - Ron and Laurie: Whiting visit in July looking at lab for excess in Petroleum physics lab for surplus or redundant equipment for SDSM&T and will get back to AB in December. Sherwin offered to ask Senior Executive at Whiting for

hardware. Need video card upgrades at \$600 each, so that the 2016 software will run. Coordinate with Hess, also.

The general AB meeting was concluded at 11:40 A.M.

IAB Business Meeting:

After departure of GGE faculty except for Laurie, Jeanne convened the AB business meeting at 12:33 PM. Minutes for the April 9, 2016, AB meeting were approved by unanimous vote, with Greg making the motion to approve and second by Steve.

Add two items to Agenda: Discussion to add assistant to Nuri; Laurie's white paper

Old Business:

Advisory Board Faculty Role: At the April meeting, discussed the Faculty survey. Last item to address is to continue with survey. Steve discussed the survey was positive but confusion with faculty that an AB role was fundraising based on Mining Board. AB differed because the activity and time was to focus on curricula, faculty positions, time effort, and to support the department and faculty and seeing if there are other strategic areas the AB could assist. What is the focus for next 3 years? Once ERI in position, is the next consideration the field station?

David discussed the role of the Mining board, which is funding. The AB is different by providing long term objectives and members to the AB with contemporary contacts who should be sought after for future members and those who have current influence on corporations. We may need some mix of the executive ranks of mining and energy, and influence on corporate donations and employment. Faculty wanted the AB to represent the industry and faculty. Steve Nelson suggested representation of Civil technical of hydrogeology. The maximum number of AB members is not set but could seek out gaps to better reflect the industry. Maybe need talk between AB and faculty?

The AB could be asked by the faculty to present or share experience/knowledge. Laurie supports and needs to find the right fit between student and AB member. Greg proposed sending out a letter of would you like to share expertise and then sent to faculty for providing broader experience. AB members are willing to help when and where they can. Faculty should be approached to ask what they may need and be flexible with course offerings to help accommodate schedule. There is a market for teachers needing to keep up credits for Earth Sciences.

New Business:

1. Discussion moved to the Field Station: Need position description and other information, numbers, deferred maintenance added to a white paper; goal to move what is in Nuri's head and put down on paper to help him with his request to the AB for assisting him with his request. Request information from Nuri and then provide AB support. Maybe partner with Game Fish and Parks with understanding the first priority goes to the field station. Board agrees to provide support. Recommendation will be brought to the AB by the end of October.

2. Laurie's White Paper to Graduate Committee to open up the non-thesis MS option was discussed. Faculty to Provost then to Dean of Grad School back to Provost; then back to Dean of Grad School. Faculty wanted it discussed. Not all departments require a Thesis. Provost wants the Non-thesis and Thesis options available for all departments.
3. ABET,-Jeanne, Steve-Field station and Barb-Museum subcommittee meetings.
4. MI building progress: some early success for donations; however this didn't work out. A programmatic study has to be done and the need to look into State funding. Need to understand the department's needs and get a timeline and commitment from the State. Progress is being made on the programmatic study? Waiting for Foundation report.
5. Election of new member: Tim Wilcox agreed to become an AB member. David made motion, Gus 2nd, approve unanimously.
6. Laurie will discuss with Faculty to tell AB to ask members for assistance/presentations? Minimum a semester ahead; student can register two semesters ahead. Independent studies are more flexible-3 students with a Topic; Short courses 7 grad, 10 undergrad and the number the students can get credit for varies between departments; best for all if set up a year ahead. Get a faculty partner and they will propose to get it scheduled.
7. The next meeting of the AB was scheduled for Saturday, April 8, 2017.
8. Jeanne asked if there was any further business to be discussed and there being none adjourned the meeting at 2:00 PM; GM proposed to end meeting and Dave 2nd; voted unanimously.

Individual Subcommittee meetings began at 2:15 PM, one consisting of a general discussion between faculty and AB members involved with Museum and Paleontology activities, and the second for issues related to the upcoming ABET general accreditation review for the geological engineering program and the Field Station.

Here are the minutes from our Field Camp Committee meeting on Sat 9.17.16:

The Committee expressed its strong support of the Field Camp Program, as well as that of the entire Board. We commended Dr. Uzunlar on his continued success but also stated our concern over the fact that he is a single point of failure and if something happens that he is no longer able or willing to run the camps the program will likely suffer greatly, or cease completely. The committee offered the Board's decision to write a letter of support to the Provost and University President prior to the budget meeting in order to try and assist Dr. Uzunlar in getting approval for an assistant. In preparing the support letter, the Committee asked that Dr. Uzunlar provide the following information by the end of Oct prior to the budget meetings:

- A written position description for Dr. Uzunlar's current role of Field Camp Director
- A written position description for the proposed Assistant Field Camp Director
- A short "white paper" describing the program and supporting the need for the additional position - to include latest financial and enrollment statistics as well as some of the intangible benefits of the program (reputation etc.).

It was agreed that once the above information was provided the committee would collate and provide to the IAB President Jeanne Goodman, who would then initiate contact with the Provost and President prior to sending an official letter of support - if such a letter was deemed appropriate and necessary.

The committee then discussed the need/desire for an alternative location to Ranch A for the Black Hills camps. It was agreed that once the supporting documentation was complete for the budget proposal, Dr. Uzunlar would begin working on a justification for a new Black Hills field camp station that would be used to initiate discussions with Dr. Anderson, the Provost and University President in order to gain support and permission for adding to the Foundation list of approved funding projects.

Having no further business, the meeting was adjourned.

Respectfully Submitted,

Steve O'Rourke

Museum Committee Notes: Sally, Greg, Christina, Barb, Kelsie Abrams joined later.

Sally is trying to get Pleistocene and paleobotany research partners with the Museum. These researchers are Dr. Jim Meade at the Hot Springs Mammoth Site and Dr. Eric Grimm who has plans to moving to the Rapid City Area. Also, stronger connections with Dr. Mike Lietie at Chadron State has been promising. AB could support and independent study or short course with these experts in mind.

Greg suggests that a SDSM&T staff be on the Mammoth Site Board. Also bring Jim as adjunct SDSM&T.

1. Independent study and short course and team up an intense course 16 hrs split between Friday and Saturday (or Sat/Sun). Could be tied into the certification of resource management. Christina said there is a need for 1 hr or short course to help those students.
2. Regarding to Nuri's FC, Earth Science teachers need credits to maintain their ES; courses can be applied for ES teachers. A lot of education outreach to help develop for the correct level; state standards, etc. Sally has local contacts that can be of great assistance for course development. There is a 'flume' but not one to use for scientific research; useful for presentations. Engineering project can build one and design to be broken into pieces.. Pooling resources with Mammoth Site, good presentation facility, but lab not conducive to this type and SDSM&T has. Like to add OLC and Sitting Bull and others, invite and get a bus to pick them up. Pine Ridge support of science is tenuous. This sort of project could be a great NSF grant, to include the bus, etc. List of people that would be willing to come; collaboration and commitment. Contact BIA that can be a support/logistics. (Avina Songbird)

3. Get with Darrin and Laurie about resource management certification. What does a certificate require; 4 courses (12 credits) 3 standard classes. Talk with Laurie about what would it take to make it a reality. There are already 4 courses: Prep, Resource Management, and Exhibit Design. Would not have to have a degree to take the Resource Management Short Course. Perhaps have an on-line course; smart classrooms on campus.
4. Kelsie shared her plans for the 2017 year with the courses and paleo prep blog.
5. We adjourned at 3:45 PM.

Barb Beasley for Museum Notes.

Respectfully submitted,

Barbara A. Beasley
GGE Advisory Board Secretary