
Dean's Advisory Council Meeting Minutes
NMSU College of Engineering
August 24-25, 2015

Council Members Present

Joseph Perea, Chair, ExxonMobil
Randy Rothschild, Vice Chair, Raytheon
Mike Beck, Associated Contractors of New Mexico (conference call participant)
Christopher Croshaw, ETSE Representative
Kevin Eades, CE Representative
Debra Hicks, Pettigrew & Associates (conference call participant)
Stephen Horan, ECE Representative
Chris Long, Orbital ATK
Anthony Medina, Sandia National Laboratories (conference call participant)
Bob Myers, RGM Consulting
Brian Rashap, Intel Corporation
Lisa Webster, EEA Consulting Engineers (conference call participant)

Council Members Absent

Edmund Archuleta
Leonard Bloom, Western Refining
David Durgin, Verge Fund
John Galassini, Sunshine Silver Mines Corp.
Arthur Hurtado
Nina Jensen, ChE Representative
Aubrey Johnson, PNM
David Martinez, MIT Lincoln Laboratory
Wencil McClenahan, MAE Representative
Richard Montman, Halliburton
Peggy Morse
Robert B. Sachs, TEAM Technologies, Inc.
Jerry Shaw, VOLT
Albert Thomas, Bohannon-Huston

NMSU College of Engineering Personnel

Steve Stochaj, Interim Dean
Patricia Sullivan, Associate Dean
Rolfe Sassenfeld, Interim Associate Dean
Juan Albert, Assistant Dean
David Jauregui, CE Department Head
David Rockstraw, ChE Department Head
Satish Ranade, ECE Department Head
Tom Jenkins, ETSE Department Head
Edward Pines, IE Department Head
Tracey O'Neil, Program Manager

Monday, August 24, 2015

Vice Chair Randy Rothschild called the meeting to order. Interim Dean Steve Stochaj was introduced and provided an update on the College of Engineering.

College Update

- Stochaj outlined his priorities over the next year as interim dean.
 - Update on personnel changes:
 - Associate Dean Cooper will be on administrative sabbatical for the 2015-16 academic year. In her absence, Rolfe Sassenfeld will serve as interim.
 - Dr. Martha Mitchell had stepped down as Associate Dean to return to the faculty of Chemical Engineering. Efforts are underway to identify a replacement.
 - Dr. David Jauregui has been named department head of Civil Engineering.
 - Dr. Gabe Garcia is serving as interim department head for the Mechanical and Aerospace Engineering until the new department head arrives in January 2016.
 - Professor Tom Jenkins has been named department head of Engineering Technology and Surveying Engineering.
 - Reported on successful outcomes from Engineering 100, with
 - Pursue external partnerships in collaboration with faculty to enhance competitiveness of research proposals/grants.
 - Prioritize open faculty line positions based on critical topical areas and student enrollments.
 - Support a strong communications plan to recognize and promote faculty and programs across the college.
 - Outlined
- Ranade provided a briefing on the National Science Foundation (NSF) CREST program and proposed legislative support for the Southwest Technology Development Institute.
- Jauregui provided a briefing on the NSF Geotechnical Engineering Research Center. Comprised of a consortium of university, industry and government partners, led by Arizona State University, the \$18.5 million grant is focused on expanding the emerging field of bio geotechnical engineering.

Discussion

- The council discussed the importance of seeing students participate in extracurricular activities and encouraged the college to encourage students to seek such opportunities. They also discussed the demand statewide and in industry for more courses/experience with computer engineering. Offering these courses at NMSU could be offered at relatively low cost while providing students with much needed skills in the computer science area.
- The council discussed the value of interdisciplinary capstone projects as a means of gaining experience working on teams.

Dean's Search and NMSU update by Provost

Provost Dan Howard updated the council on the search for a permanent dean. The pending search committee will be comprised of elected faculty members from each department, engineering staff, and representatives from across campus, and community/industry partners. Howard encouraged the council to email community/industry names for consideration. He noted that the position announcement is expected to be posted before year-end.

Howard discussed the 3% budget cuts each college was asked make. Each college would be losing a couple faculty lines. Enrollment decline is the driving force behind budget cuts. This year, freshman enrollment is up 6% but he predicted one more year of institutional decline before seeing a change in those statistics.

Howard discussed proposed changes to graduate student health insurance. NMSU is working to ensure compliance with the Affordable Care Act.

Howard discussed two new initiatives designed to promote student success; Aggie Pathway to the Baccalaureate and the Student Success Navigators. He reported that NMSU was increasing admission standards to 2.75 GPA or ACT Score of 21. He added that the university loses about 28% of students their first year, as such an institutional Navigators program has been adopted to provide peer mentoring. These peer mentors will help guide freshmen students about academic, personal, and career preparation strategies that will support their overall success.

Discussion

Tom Jenkins asked if changes are being proposed to the "Viewing the Wider World" courses. Howard said that they would be reviewing these courses to better provide students a concise path to graduation.

NM Higher Education Department Update

Dr. Bridgette Noonan from the New Mexico Higher Education Department (HED) provided an update on state-wide efforts to enhance 4-year graduation rates. She reported that legislation was passed and signed by the governor in 2015 that requires NM HED to establish and maintain a comprehensive statewide plan to provide for the articulation of educational programs and facilitate the transfer of students between institutions. She added that this plan must be in place by August 2017. She discussed the adult education program- a GED or high school diploma were not enough when going back to school, so these courses would help get these individuals on an actual career path.

Discussion

Perea asked about the loss of university identity in the pending articulation plan. Noonan noted that the articulation plan was focusing on aligning the first two years and that university identity was not expected to be impacted.

Horan asked about possible impacts for ABET accreditation by aligning all university courses. Noonan encouraged engineering faculty to bring any accreditation concerns to the statewide committee.

Stochaj shared that several students take dual credit courses prior to college admission. He added that these students find themselves delving directly into their college career with harder courses. This oftentimes puts a heavy burden on students with little-to-no-relief in their course schedules.

Sullivan added that dual credit students also face the reality of taking more difficult coursework their first semester while working to gain eligibility for the NM Lottery Scholarship.

NM Employability Partnership

Mike Cheney, chair of the NM Employability Partnership, provided an overview on the program, which was established by Governor Martinez to evaluate the current workforce delivery system, i.e. the pipeline. He added that they were tasked with the following:

- Evaluate the effectiveness and return on investment of current programs;

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- Continue development, implementation, and refinement of a comprehensive strategic plan that is metric and business demand driven; and
 - Identify policy impediments to increase New Mexico's overall employability.

Discussion

Myers said the challenge for some students hoping to graduate in four years is getting into courses they need at the time of year it is offered and this can delay graduation. This challenge can be compromised further when the student participates in an internship or co-op, which are also critical to employment upon graduation.

Cheney said providing education, research and service are the priorities of the university. He discussed how to better leverage the university's network to supply new industry partners in the area with the workforce they are looking for and provide employment opportunities for students pursuing degrees in certain workforce fields.

Jauregui asked about aligning financial support for university programs with workforce needs. Cheney said this was a great idea, but it would be difficult to implement.

NMSU Arrowhead Center Overview

Kathy Hansen presented an overview of the Arrowhead Center and their efforts to promote entrepreneurship at NMSU and the tie-ins with other departments including engineering. She noted that Electrical Engineering Professor Paul Furth serves as a Co-PI on the FAST grant, which is focused on expanding the number of SBIR/STTR grants submitted by NMSU and external partners. She also added that several engineering faculty serves as advisors to students housed within the Studio G incubator at Arrowhead.

Tuesday, August 25, 2015

Council Chair Joseph Perea called the business meeting to order. Motion to approve minutes was made by Debra Hicks and seconded by Randy Rothschild. Majority voted to accept minutes.

Perea called for reports on Action Items from the February 2015 meeting.

Action Item: Create system to track co-ops, internships, employment following graduation, etc.
On hold at the Dean's request to allow time for coordination with NMSU Career Services.

Action Item: Report on College Strategic Plan rollout to faculty and staff.
On hold at Dean's request- Steve Stochaj reported that he needed time to review current plan, i.e. he assumed the role of interim dean in early August.

Action Item: Council members to provide copies of diversity plans for the College to review for refinement of Goal #2.
Steve Horan and Brian Rashap provided feedback to the dean prior to the meeting. All other members need to provide their respective diversity plans to Tracey O'Neil before next meeting.

Action Item: Utilize departmental academy members for proposal reviews where applicable and relevant. Peggy Morse, Steve Horan, Martha Mitchell, academy representatives

- a. Get tips on proposal submission and teams and webinars options.
- b. Track success measures.
- c. Get involvement on pink, red committees from council and academies.

Discussion ensued regarding the importance of putting together quality proposals. Horan said he sent Martha Mitchell information about an OST proposal writing training. Long offered to assist with proposal reviews. The council discussed contributing to team reviews for proposals and offered to help provide workshops on proposal development. Long suggested having the NMSU VP of Research present to better understand internal review processes and how Council members can effectively contribute.

Action Item: Pilot a program for professional sabbatical. Aubrey Johnson, Sonya Cooper, Patricia Sullivan, Department heads

Aubrey Johnson and Dr. Satish Ranade are collaborating to develop a pilot program in field of power engineering. Jauregui said his department would be interested in pursuing something similar following initial pilot program.

Action Item: Get departmental report on academy activities for next meeting, including support for facility and equipment improvements and student experiences. (Department heads)

Surveying Engineering: Scott Croshaw said they had been working on utilizing laser technology they had been developing in an effort to attract more students and further develop research. Stochaj expressed concern about boosting enrollment in the ET & SE department. While it was important to grow the program, it would currently be difficult to support with three faculty for 20 majors.

Engineering Technology: Tom Jenkins discussed the ICT program within the department of ET & SE. He said it is growing in popularity with 150 students out of the 500-students enrolled in the department. He noted that they have partnered with the Computer Science Department to expand course options, however, they still need additional resources to adequately serve the growing enrollment.

Civil Engineering: Jauregui that the ACAGE Academy has created one graduate and one undergraduate scholarship at \$500 each.

Action Item: Departmental reports on efforts to share research undergraduate students. Department heads)

Jauregui reported that the CE has developed a successful research seminars with NM DOT. UNM has also approached him about hosting a New Mexico Research Day to focus on CE research at the two institutions.

New Business

- *Computer engineering degree:* Stochaj introduced a discussion on possibly establishing a new computer engineering degree option. Long said that his company had gotten away from hiring computer scientists and were now hiring electrical engineers to work on their software, adding that knowledge of hardware integration was important.
- *Dean's Council meeting with President and Provost:* Perea asked Horan if he would assist in preparing materials to present to the president and regents about the value of offering more summer courses to achieve the four-year graduation. Horan discussed the fixed costs associated

with offering summer classes and supporting the research infrastructure. There is a cost of compliance for doing research, but he says this is part of the cost of doing business. It is important to emphasize this to the administration to order to move forward. **ACTION REQUIRED: Report on meeting with President and Provost (Perea, Rothschild, Stochaj)**

- *Masters of Engineering On-line degree: Horan and Long inquired about the status of the pending Masters of Engineering program. Stochaj talked about the challenges of creating an online course- logistics being at the top of the list. Myers asked whether there was concern for the potential loss of value in the education when the students did not attend labs and/or gain the hands-on experience. Stochaj said it came down to where the lifelong learning is taking the students. He asked the council to consider the skills the students will need to have upon entering the workforce. **ACTION REQUIRED: Report on update of Masters of Engineering online degree (Stochaj, Pines)***
- *The council discussed hosting a Roundtable discussion during the next meeting on "workforce readiness." Students from all engineering majors will be invited to attend. **ACTION REQUIRED: Contact council members to participate in Roundtable discussion and invite students. (Perea, Jensen, O'Neil)***
- *The council discussed creating centers to grow research and create more opportunities to grow the graduate program.*
- *Jauregui asked the council to consider conducting a comparative analysis between NMSU and UNM engineering problems including, faculty/student ratio, research expenditures, funding, number of faculty, and faculty salaries. Discussion ensued but did not result in a formal action item.*
- *Council members will be polled to finalize date for spring 2016 meeting.*

With no further business, Perea adjourned the meeting.