
Minutes of the Dean's Advisory Council Meeting (DRAFT)
NMSU College of Engineering
February 20-21, 2014
NMSU Campus

Council Attendees

Anthony Medina, Sandia National Laboratories, Council Chair
Michael Beck, Associated Contractors of New Mexico
Leonard Bloom, Western Refining
Kevin Eades, Molzen-Corbin
John Galassini, Sunshine Silver Mines Corp.
Debra Hicks, Pettigrew & Associates
Stephen Horan, NASA
Nina Jensen, Western Refining
Wencil McClenahan, MEA Academy
Bob Myers, Robert G. Myers Consulting
Joseph Nevarez
Joseph Perea, Exxon Mobil Lubricants & Specialties
Brian Rashad, Intel Corporation
Randy Rothschild, Raytheon Company
Robert Sachs, Team Technologies
Jerry Shaw, Volt Information Sciences Inc.
Albert Thomas, Bohannon-Huston
Lisa Webster, EEA Consulting Engineers (telephone participant)

David Rockstraw, ChE Department Head
Peter Martin, CE Department Head
Satish Ranade, ECE Department Head
Jeff Beasley, ET & SE Department Head
Ed Pines, IE Department Head
Ian Leslie, MAE Department Head

Tracey O'Neil, Program Coordinator

Absent

Sylvia Acevedo, Communicard, LLC
Edmund Archuleta, El Paso Water Utilities
Thomas Beall, V-F Petroleum Inc.
David Durgin, Verge Fund
Arthur Hurtado, Invertix
Carl Johnson, Northrop Grumman
David Martinez, MIT Lincoln Laboratory
Margaret Morse, Boeing Company
Sam Romero, Harris Corp.
Jeffrey Weiner, IBM Corporation (retired)

College Personnel

Ricardo Jacquez, Dean
Sonya Cooper, Associate Dean
Martha Mitchell, Associate Dean
Patricia Sullivan, Assistant Dean

Welcome

Welcome by Council Chair Anthony Medina.

Motion to approve minutes: Bob Sachs; seconded by Randy Rothschild. Approved.

College Overview

Enrollment Statistics: NMSU still currently down. College of Engineering numbers stable and good compared to the rest of the university. These numbers are up from last year's enrollment number.

Jett Hall Renovation: On going. Expected to be completed by this fall.

Student Technology Fee: Student feedback has been positive. Approved and to be implemented in fall 2014. He said they promised the students to be transparent in how the funds collected will be utilized to the benefit of the students.

Medina asked about the staffing needs. Jacquez said a safety person was needed to support the chemical engineering department along with similar support people in other departments.

Sonya Cooper added that funds currently collected by the university go to the wifi connectivity across campus and to other areas that don't directly affect the engineering students. She said that she met with the students in 3-4 forums to discuss the fee and there was very few objections. She said the numbers to be assessed will be under the full time students.

Medina asked about the renovation of the computer labs and other equipment needed. Cooper said the equipment and software required would also be covered by the technology funds received. Jacquez added that most of that is already covered under the university. Jacquez clarified that this fee would not replace the computers; this fee would be used to maintain the computers and fees.

Medina asked about the ABET questions regarding labs and asked how this fee would be able to be applied to such needs. Cooper and Martha Mitchell said this fee would address the ABET concerns in the future.

Undergraduate education: Jacquez discussed the current state and upcoming changes being made to better support undergraduate education.

Bob Sachs asked about the trend of 33% reflected in the presentation.

Wencil McClenahan discussed a program called the Steam Club that, in earlier years, had served as a mentor program. He suggested Cooper talk to some of the founders of this program to discuss some of the challenges they have already faced and how NMSU College of Engineering can avoid them in the future.

Cooper discussed the success of the ILC student model and expanded on how the program would operate. She said the students would have a scheduled time to meet with their mentor and they would receive participation points.

Action Item: Council members share their organization's mentorship programs.

Stephen Horan asked if faculty build in tuition and book expenses into their grant proposals.

Jacquez discussed the President's Performance Funds initiative and introduced Martha Mitchell as head of that effort. Mitchell said the way to best increase research funding is to increase faculty lines. She said the students need to be encouraged to apply and help with the faculty research efforts.

Jacquez said they were looking at how to improve faculty's success in getting their grant proposals approved.

Medina asked to move action item 6 to the second day so we can expand upon it further at that time.

Faculty Panel Discussion

Dr. Muhammad Dawood, associate professor in electrical and computer engineering, lead the panel with a discussion on his teaching methodology.

Dr. David Rockstraw, chemical engineering department head, presented his department's teaching efforts with the emphasis placed on safety standards.

John Galassini said appreciated the College's efforts in making safety a priority as it is a critical and valuable component to work and research efforts.

Jacquez added that during the 2014 Engineers' Roundup that David Rockstraw received the Safety Person of the Year from the safety office on campus for his work on making safety a priority in his department.

Dr. Salim Bawazir, associate professor in civil engineering discussed the fountain design project he has the students assist with throughout the year. He demonstrated how this project has contributed to team building among the students and how that has translated into collaborations in other areas such as in studying for the FE exam.

Ed Pines, industrial engineering department head, and Young Ho Park, IE professor, presented on the engineering senior student capstone projects. Park outlined the process the students go through to address the needs of their clients or their proposed clients.

Joe Nevarez asked about the setup of the capstone projects for the students. Park said the students are involved in 1-2 projects over the course of the year.

Pines discussed IE Professor Delia Vallez' work on a project with Lucchese boots, out of El Paso. They are working on streamlining the process for the custom work done for boots. Medina asked if there was a charge for the process. Pines said no because they want there to be projects accessible to the students and if they charged, they may not get any interest.

The council discussed the overlap of US-Mexico border and how the collaborations have contributed to the business environment.

Luke Nogales, assistant professor in Engineering Technology and Surveying Engineering, discussed the College's efforts in innovation and entrepreneurship. He and Pines are pioneering an entrepreneurship minor for students to pursue. Nogales discussed the benefits of adding this course to the education

students are already receiving at NMSU. He said that graduates working for Cummins are proud of the education they received at NMSU and how it has profited them while working at Cummins.

Jacquez mentioned 40-60 employees out of five thousand are from NMSU at Cummins.

Phillip DeLeon discussed some of his best classroom practices starting with a new app development class created in response to the overwhelming student interest. He said an important part of teaching is learning to ask the right questions. He does all the work the students do and gets graded at the end as well. The diversity and complexity of the apps created in the course show the creativity students are capable. DeLeon said he has encouraged many of his students to take their apps to the next level as an actual business venture.

Nevarez asked how many of the students who have taken the class have gone onto professions that this course has benefited them. DeLeon said he hasn't had many graduates from the program yet, but he expects this is the kind of skill that many organizations would value.

Friday, Feb. 21

Council Engagement: Anthony Medina asked the council for suggestions on assessment and how to improve as a council.

Stephen Horan suggested evaluating organization's and how the amount of available funds affects their involvement. As an example, he mentioned NASA and how available dollars directly affects their participation. He said internships offer a great opportunity for students and the college as a whole to be able to see what's going on in the organization. Student involvement is key and he said NASA was making a very strong pitch to get more students like this. He forwards any information onto his contacts on campus as soon as it becomes involvement.

Action Item: Council members review their organization's policy on student opportunities such as internships and co-ops and share with the College when possible.

Brian Rashap agreed internships and co-ops provide students with a unique in-depth look at their field of study that can potentially affect their career choices later on. He discussed Intel's new hope of creating a stronger presence on campus with the Aggie Innovation Center in an effort to bridge the gap created by having a company outside of the area. He said Intel was very interested in the new app program and possibly expanding into that area to reach students as well.

Wencil McClenahan said, in his experience with Boeing, they commit funds to assisting with scholarships and capstone support in hopes of encouraging students to intern with their company.

Randy Rothschild said Raytheon has 165 employees in Tuscan and several more in White Sands that came from NMSU. He said that while Raytheon has contributed to scholarship and research efforts on campus, the challenge is the multiple channels that they have to be navigated through in order to get funding. Rothschild offered to help in other ways on campus such as serving as a guest speaker and also to help engage others to come visit as well. Barriers are some of the ongoing projects going on at Raytheon and acquiring the time to get involved.

Bob Myers offered his contacts at Aerojet, Boeing, and Northrup Grumman along with other former Aggies he is in touch with. He mentioned several internships available at Boeing, Aerojet, etc., but the challenge is getting the students to apply.

Medina said Sandia stays involved on campus as much as possible and has sent over 1 million dollars to NMSU to go toward research efforts. Sandia currently has 18 student interns this year and had 28 the year before. They hired 32 people from NMSU this year and 495 NMSU graduates are currently working at Sandia. Medina said this kind of relationship opens up a great opportunity to get more involved. Distance is an issue, but he hopes to host more alumni days at Sandia in the future. This year, NMSU is third on the list of the amount received. UNM, first and NM Tech, second. Martha Mitchell asked what NM Tech was doing differently. Medina said he would look into it.

Joseph Perea said that one of the challenges he faces when hiring students from NMSU is the students who are not interested in leaving the southwest. He said he is focused on mentoring and he is working on putting together with Truman Bell and getting the students engaged. He said there aren't many NMSU students in middle management currently, but with the mentorship program in place and increased campus presence, he hopes to see more moving up soon.

Kevin Eades from Molzen-Corbin said they work with student organizations to speak to classes. They currently have 37 of technical people on staff and half are Aggies. He said they could work to create a stronger presence on campus by working with students on the projects they bring to the area. Economy is a challenge for them and to their clients.

John Galassini said one of his colleagues had served as Bromilow lecturer. He discussed the benefits of pursuing opportunities such as these, along with offering co-ops and internships in water conservation and desalination and other areas as well. He said that different disciplines involved in mining have created synergistic opportunities to partner with.

Action Item: Council members to send in their feedback to Patricia Sullivan and Tracey O'Neil. He asked the council members to look for ways to get their respective organizations more involved.

Lisa Webster added that the Atomic Engineering and United Way both serve as opportunities to increase exposure to the College of Engineering.

Jacquez agreed that improving the state of the college is about outreach, branding, and the students. He said one of the challenges they faced is keeping faculty members and being competitive about keeping them. He said that the college should start with outreach- with BEST, PREP, and PLTW. He said resources important and asked for council support in continuing to make it all happen.

Webster discussed a mentorship program used by United Way recently started to improve retention and get more students to college. She said they were in communication with the governor's office to get support for this project and offered to get the information about the program to the council.

Jacquez needs \$100,000-125,000 to support a person that would lead these efforts. He asked the council to help make the connections to make this happen.

Meeting adjourned.

Dean's Council Action Items

1. Council members share their organization's mentorship programs. *All Council members*
2. Council members review their organization's policy on student opportunities such as internships and co-ops and share with the College when possible. *All Council members*
3. Council members to send in their feedback on how their respective organizations are or can get more involved to Patricia Sullivan and Tracey O'Neil. *All Council members*
4. Provide Council with more information about the College's mentorship plan. *Sonya Cooper*
5. Coordinate efforts for the Fall Dean's Advisory Council Meeting to be hosted by Northrop Grumman. *College of Engineering Dean's office*