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Minutes of the Dean's Advisory Council Meeting (DRAFT)  
NMSU College of Engineering  
February 26-27, 2015

Council Attendees

Anthony Medina, Sandia National Laboratories, Council Chair  
Joseph Perea, Vice Chair, ExxonMobil (telephone participant)  
Leonard Bloom, Western Refining  
Christopher Croshaw, ETSE Representative  
Kevin Eades, CE Representative  
Debra Hicks, CE Representative  
Stephen Horan, ECE Representative  
Nina Jensen, ChE Representative  
Aubrey Johnson, PNM  
Wencil McClenahan, MAE Representative  
Richard Montman, Halliburton  
Peggy Morse, The Boeing Company  
Bob Myers, Aerojet  
Brian Rashap, Intel Corporation  
Randy Rothschild, Raytheon  
Lisa Webster, EEA Consulting Engineers

College Personnel

Ricardo Jacques, Dean  
Patricia Sullivan, Associate Dean  
Sonya Cooper, Associate Dean  
Martha Mitchell, Associate Dean  
Juan Albert, Assistant Dean  
Peter Martin, CE Department Head  
David Rockstraw, ChE Department Head  
Satish Ranade, ECE Department Head

Jeff Beasley, ETSE Department Head  
Ed Pines, IE Department Head  
Ian Leslie, MAE Department Head  
Tracey O'Neil, Program Manager  
Linda Fresques, Communications Director

Absent

Sylvia Acevedo, Communicard, LLC  
Edmund Archuleta, El Paso Water Utilities  
Frank Bates, El Paso Electric Company (Retired)  
Thomas Beall, V-F Petroleum Inc.  
Michael Beck, Associated Contractors of New Mexico  
David Durgin, Verge Fund  
John Galassini, Sunshine Silver Mines Corp.  
Arthur Hurtado, Invertix  
Carl Johnson, Northrop Grumman  
General Lester Lyles, The Lyles Group  
David Martinez, MIT Lincoln Laboratory  
Robert B. Sachs, TEAM Technologies, Inc.  
Jerry Shaw, VOLT  
Albert Thomas, Bohannon-Huston

Welcome

Welcome and introduction of all council guests.

Approval of Minutes

Motion to approve Fall 2014 Minutes: Randy Rothschild  
Motion seconded by: Lisa Webster. Motion Approved.

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Council Chair Anthony Medina began the Dean's Council meeting with a report on his and Vice Chair Joseph Perea's meeting with the NMSU president and provost. Undergraduate enrollment and funding in engineering, as well as graduate student enrollment and outreach efforts were the primary topics of the conversation. The provost showed strong interest in the discussion and how an increase funding could further develop these areas.

### College Overview

Medina introduced the first presentation ("Council Business" on the website) on NMSU's potential to be a high profile university through the engineering college. The council discussed faculty need and how it was quantified. The council agreed that introducing these numbers may not provide the support that the council sought for the college. Medina said the presentation's numbers had been based on council members' provided feedback and that any additions council members had would be welcome.

Aubrey Johnson asked about looking at the numbers for other universities such as UNM and how NMSU compares to these institutions. Jacquez said NMSU was competitive with these institutions, but not in all categories. Johnson mentioned that going after these numbers may factor into funding. He suggested how faculty are being utilized and how NMSU compared to peer institutions would be a good idea to present when going after support for faculty hires.

Medina said that the goal of meeting with the president and provost was to demonstrate the value the College of Engineering brings to the university and the kind of high standards it seeks to maintain in an effort to keep the College at the front of their minds as the university administrators pursue further funding. Dean Jacquez said he would reiterate the discussion from the Council with the Provost during his next one-on-one meeting.

Montman questioned how other colleges at NMSU are doing with respect to enrollment, faculty lines, etc. Jacquez noted that while others have received cuts in faculty lines due to declining enrollment, the College of Engineering has not been similarly impacted. Montman noted that engineering appears to be a sound investment by the institution.

Jacquez noted that he keeps Medina apprised of enrollment data as it is received and that Medina continues to share it with the Council.

Jacquez provided an update on the state of the College. Jacquez, Rockstraw, Leslie, and Cooper are leading the Jett Hall renovation effort. The current focus is identifying office space for faculty at Regents Row, location for classes, and most importantly, the faculty research facilities during the course of the renovation. Still pending issues include relocation of computer labs and the student project center. The renovation is expected to be completed by December 2016. Hicks inquired about the process used to determine how the renovation would be completed; i.e. classrooms, etc. to ensure facilities align with changes in teaching methods. Jacquez noted that there was not sufficient funding to renovate the labs and that the primary focus was on HVAC and safety upgrades of research labs.

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Rockstraw discussed the status of the renovations and how the funds were being allocated. The original university proposal requested \$20 million and ended with \$18 million. While \$3 million of that \$18 million will go to Rentrow, the president has made it a priority to pursue the additional \$2 million from the legislature to go to the Jett Hall renovation. Rockstraw said the current expenditure will result in a "bare bones" renovation, but the additional fund would go a long way in improving Jett Hall as a whole.

Jacquez introduced the College of Engineering 20/20 strategic plan to the council and encouraged council members to send any feedback to Tracey O'Neil.

*Action Item: Council will collaborate to create a response to the 20/20 plan.*

Jacquez discussed how the College of Engineering has been analyzing the University's Vision 20/20 to better address how the College will set and meet these goals for the College's vision.

Jacquez discussed efforts to increase diversity. One such effort involved the distribution of bookmarks embracing diversity provided by the Dean's office celebrating Engineers' Week. He hopes to further efforts to embrace and increase diversity within the College.

He then took a moment to acknowledge the previous day's Las Cruces Sun-News featuring the College's E-Week activities. Multiple articles highlighted the College of Engineering E-Week activities that week starting with a picture of high school student visiting featured on the front page, followed by a piece on the Intel hot air balloon on campus to promote engineering and a piece on this year's Bromilow Lecture speaker, John Mulholland from Boeing.

The council then returned to the discussion on the strategic plan. Bob Myers asked what the measures were going to be used to measure the success of the strategic plan goals and how the College will use the feedback received on the plan. Sonya Cooper said they had specific strategies and instruments in place to measure the assessment and evaluation and while it would be a challenge, they were working to improve the strategies and instruments to ensure they are successful.

Patricia Sullivan said they were putting procedures in place to better collect and measure the involvement of the students. One such effort involved working with the local school systems to better track the students to better align efforts throughout the pipeline.

Martha Mitchell said they had also been working on improving tracking using a tool called Digital Measures. Digital Measures had allowed them to improve the numbers associated with research and proposal efforts within the College. She said they were also working on putting requirements in place to improve and benefit efforts made by faculty and graduate students pursuing proposals.

Legislative Update: based on the three one-page documents provided in the council packets.

STEM AMP/Minority Student Services

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*Jacquez discussed the Legislative Update and the STEM AMP/Minority Students Services documents (three one-page documents provided in council packets) before introducing Satish Ranade to give further explanation on how those efforts were moving forward.*

*Ranade said they were looking at how to integrate large numbers of consumables and fit them into the RFP. He said this funding would allow them to grow the program to the size they would like it. While the bill was moving forward, they were not sure it would be a priority for the university. He said it had already made it through several of the committees including the committee that deals with natural resources and the business committee. Jacquez said there was still work to do though with less than a month to get approved and council support would help make a strong case to improve.*

### College of Engineering Communications Plan

*Next, Linda Fresques gave an update on the College Communications plan with a focus on the newly-designed College of Engineering website. The updated website featured new tools that would ease use for all- faculty, students, staff, and alumni and streamlined webpages to better serve the needs requested. Scholarship inquiries, for example, would be directed to the Scholarships page. The departments are maintaining control of their departments' pages.*

*She briefly went over the College's current communication plan. While it has been in place for several years, she ensures its relevancy by meeting regularly with the university's Communication Council to further align the College's efforts with that of other organizations on campus and the university as a whole. Outside of the website, some of the other communication efforts implemented vary from t-shirts, flyers, brochures, press release, etc. These are all used for the promotion and support of the College. Council members requested some of the promotional items to disseminate in their respective regions and help further promote the College of Engineering.*

*Action item: Provide council with COE promotional materials to take with them and disseminate in their respective regions.*

*Fresques discussed outreach efforts, such as Resumania, and how they have become an important effort strongly supported by corporate partners.*

*Some parts of the communications plans such as the College of Engineering Annual Report are designed to meet the needs of College research and development efforts. The Annual Report reports the past year's statistics and features highlights from the past year involving faculty, students or research that best exemplify the College's mission. It is then sent to other institutions to further the promotion and support of the College as part of the effort to increase the College's rankings nationwide. Awards and recognitions are a part of President Carruthers' mission to recognize and appreciate key members of the faculty and staff.*

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*Fresques tracks the various efforts of the communications plan from how many t-shirts are handed out to the distribution of Annual Reports to other institutions. She welcomed any feedback for the improvement of the web or the communications plan.*

*Sullivan discussed workforce development efforts made through the Innovation Space. This past year, the College has worked with corporate partners such as Sandia National Labs and Intel to better address classroom and industry needs through pop-up workshops and design challenges. The pop-up workshops have served to address needs that allow students to better pursue the design challenges along with classroom and industry needs. Sullivan said a radar workshop recently hosted required students come to campus on a Saturday for an all-day workshop resulted in a surprisingly strong and positive response.*

*She said that through assistance from Intel, the Innovation Space had hired nine student apprentices to assist their fellow students interested in utilizing the Innovation Space. Prior to the start of the semester, the apprentices attended a one-day training where they took a personality test, reported on assigned books on innovation, and ran through a prototyping exercise that all served to teach them how to work together as a team made up of different personalities and backgrounds to benefit innovation cultivation in the College.*

*Different institutions and corporate partners have taken an interest in the College's innovation efforts and it is hoped that through the Innovation Space, the College can partner with these organizations to further advance innovation.*

*The Innovation Space is also collaborating with other departments on campus with several projects/workshops in development with the Art Department and the Marketing Department. Sullivan said they have been working with the Health and Social Sciences Department as well to host another workshop in the next few weeks.*

*The Innovation Space is putting a tracking system into place to report student usage of the space- what they are doing, what their academic backgrounds are, what projects/workshops they are interested in, etc.*

### Career Services

*Tony Marin from Career Services discussed collaborations with the College of Engineering and how the two have worked together to better serve the students.*

*Marin introduced two key members of the Career Services team- Liz Torres and Kevin Andrew who he brought with him to better address any questions the council may have.*

*Marin discussed projects such as the career fairs, advising hours, career development workshops, Resumania, etc. and the effectiveness of these efforts. He said that in comparison with peer institutions, NMSU exceeds efforts made by the other institutions. One effort of special interest is the financial literacy information. Etiquette dinner is being held later this spring with an expected attendance of 40 engineering students. It serves to better prepare the*

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*students for world outside the college setting. Mock interviews serve to assist students in interviews with prospective employers.*

*A great effort has been made to prepare students as best as possible as the students represent not only themselves and their departments, but also the university as a whole. Marin said it is the goal of Career Services not only to address this reality, but also to promote the university through the outstanding students on campus.*

*Career Services serves to connect students and employers through an approved manner. Through these efforts, it is hoped to that all students accept employment with respected companies. Fraudulent job postings on the NMSU website has been a problem, but Career Services has been more diligent about the job postings they have promoted to the university students.*

*Marin discussed Aggie Career Manager and how it was created to address the needs of the students it seeks to serve. It helps students apply for jobs, internships/co-ops, attend career development workshops, etc. It is an area that Career Services has sought to streamline along with leveraging the relationships with other university colleges to better address the needs of the university students.*

*Sullivan said that the College's has a strong relationship with Career Services and that working with any of the individuals at Career Services will directly benefit the engineering students. Internships is an area they are working to build the relationship, but both the College and Career Services are committed to make it work for the students.*

*The exit surveys the students complete upon graduation provide feedback to both the College and Career Services as to where the students are placed and how the university assisted in that placement. Cooper asked about the support system to better place students and promote positions to students.*

*Action Item: Report on tracking system and advising efforts to improve student placements in co-ops, internships and jobs with Career Services. Tony Marin, Patricia Sullivan.*

*Lisa Webster discussed the benefits of participating in co-ops and internships as they directly contribute to the level of preparedness of the students upon entering the workforce.*

*Sullivan said companies have been working with the College to align these efforts. Resumania has served as a great opportunity for companies to work directly with students. Companies spend the day working with students to better document the skills they have obtained while on their co-ops and internships to better align with what the companies are looking for.*

*Meeting adjourned to take picture and relocate to Thomas and Brown for the panel discussion.*

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**Friday, February 27, 2015**

*Medina opens the Friday session with a discussion of the College's strategic plan.*

*Morse said that Boeing picks 120 schools for consideration and while NMSU is not a top tier school, but they do have criteria to decide on who they will work with and support.*

*Martha Mitchell agreed and said she would hope to see the College of Engineering become part of the institutions that are nationally recognized. The council agreed that the College should work to keep the best and brightest in the graduate programs.*

*The council asked about a recruiting plan for top degrees. Sullivan said Mitchell and Jacquez had met with students to discuss their plans for the future and how to better serve students as they look into pursuing advanced degrees. She mentioned that the website has added a feature to better serve the needs of students interested in pursuing advanced degrees along with how they can match up with faculty.*

*Shaw said it was important to carefully outline the goals and to set goals that are capable of being accomplished. He also mentioned self-reporting goals and having them in place.*

*Cooper said each of the deans were assigned a goal and they were working with their teams and department heads to meet and better serve the needs of the college. She said parallel to assessing and evaluating, they were also working on all the measures such as recruiting and retention.*

*Sullivan said that these goals also roll into the university goals so all the numbers roll into the other numbers in a smooth way. They are all collecting the same numbers so they translate into usable data.*

*Mitchell asked how the department heads how they will be introducing the strategic plan to the faculty so they can implement the goals outlined in the plan.*

***Action Item: Report on strategic plan rollout at faculty and staff level. Department heads.***

*Johnson said it was important to decide how to introduce the strategic plan because everyone involved will ask "What's in it for me?" Sullivan agreed and said this was a problem they had seen before so they were working on how it aligns with their promotion and tenure process. Mitchell said this was one of the major priorities among the faculty.*

*Webster said it was important to include goals on outreach as they do in other organizations. She said including this would show some of the diversity the College has been eager to improve. Cooper said they had been looking at how to better involve their foreign students with on campus research and on-going projects.*

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*Steve Horan said the concern was the focus on the foreign and international students. It will be problematic to recruit these students and then not be able to involve them in certain projects. What does diversity mean between undergrad and graduate studies? Different definitions of diversity.*

*Johnson said this becomes an economic problem. He said a master's student could work and go to school. He said that it was important to say that the masters program gives you additional skills. In many cases, there is not a strong salary difference between students with BS versus MS.*

*Rothschild said they focus on diversity in that it is something the company values. He asked about diversity rankings and how the college measures them.*

*Sullivan said that there has been a problem with how people were filling out the surveys, but that is something Cooper and Jacquez had met with other institutions on to discuss how to measure these things.*

*Horan said that many people refuse to answer, but this is a reality across the country. He said that many people have felt that they shouldn't be counted so they don't answer. Martin said that the program was still weak in the terms of number of women pursuing degrees in engineering and should be improved.*

*Nina Jensen noticed as a recruiter at the career fair the female students came together and turned in things together, but this kind of co-dependence is not something the recruiters were looking for. Mitchell agreed that this was a social problem and through involvement in student organizations and activities, this was something helped create a more comfortable environment for females.*

*Medina asked the department heads how they will be rolling out the strategic plan to their faculty.*

*Rockstraw said he plans to roll out the strategic plan to his faculty and staff following the renovation changes, addressing the loss of two faculty and changing their graduate program.*

*Martin said he was in the process of getting the plan introduced and implemented among his faculty. He said he was excited about the plan, but he was rolling it out by focusing on the bones of the plan and introducing it that way.*

*Satish Ranade said everyone in his department had seen the plan. His plan was to plan activities based on the plan to align efforts. Curriculum review would be the first test. Looking at how the curriculum and how they align to the goals of the strategic plan. He said the department's goals already aligned with the goals of the strategic plan so he felt they would invest in measuring these goals. He said that strategic plans are great, but within them are investments that need to be made and how are we going to make those investments. And that would be one of their biggest challenges.*



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Cooper and Jacquez discussed how they go after funds to retain students assist them in doing better through Graduate Assistants, TAs and other efforts. Medina summarized discussion as the council agreed the plan was well-organized and beneficial to the College.

*Action Item: Council members to provide copies of diversity plans for the College to review for refinement of Goal #2.*

Deborah motion to approve minutes; Randy seconded.

Action Item Discussion: Peggy Morse. See Industry Strategies for college proposal writing.

Morse suggested to create a committee of department heads and council members who are interested in helping with the College proposal writing and providing feedback on proposals to be submitted. The committee could look at proposal feedback and give recommendations from there.

Mitchell and Rockstraw have been reviewing rejected proposals to better address those problems in the future. She said other feedback especially from the council members would be helpful in improved, more successful efforts in the future.

WebEx format on proposal writing. Morse also suggested getting involved earlier on. The red team looks at the final draft right before submission. The gold team would do final touches. The pink team would look at all sides, strategies, communication, addressing all needs of proposals.

She suggests putting together a pool of participants organized by discipline to be available when we send out a call for assistance on proposal submissions.

Mitchell said that the policies were there, but frequently overlook them with last minute submissions. She would like to have the teams created as they would help them be more successful in their proposal efforts.

Horan has a proposal training contact for the College's use. He said the company specializes in federal proposals submissions.

*Action item: Academies to discuss the involvement in proposal submission committees and trainings.*

- *Get tips on proposal submission and teams and webinars options. Peggy Morse, Steve Horan*
- *Track success measures. Martha Mitchell.*
- *Get involvement on pink, red committees from council and academies. Steve Horan, Peggy Morse, and academy reps*

Jacquez confirmed that the bond item had been met and the bond had passed.

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*Sullivan confirmed that the various departments were getting involved in the Aggie Innovation Space.*

*Hicks asked if it would be possible to do a Dean's Council mentor meet and greet with students and discuss careers, etc.*

*Johnson suggested doing lunch and learns to do a more informal discussion with the students. He could pick a couple different times a year to do this with the students. Perhaps find a council member to come down for a week and talk with students about experience.*

*Jacquez mentioned skype meetings with students to discuss work, documents, and interview ideas. Interactive video face-to-face.*

*Action Items: Pilot a program for professional sabbatical. Aubrey Johnson, Sonya Cooper, Patricia Sullivan, Department Heads.*

*The council discussed having industry members come to NMSU for a week (professional sabbatical) to meet with students and provide comments. These industry members would attend classes, lunch-and-learns, engage in outreach.*

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

*Ranade said their new active learning classroom has been a huge success as it has various elements to better engage the students. He said the students are using the space instead of Crosno in the evenings to discuss projects, homework, etc.*

*Report on the tech fee.*

*Jacquez would like to reserve the Domenici facility and fill seats for roundtable discussion with council members, students and faculty.*

*Myers suggested half students, half council. Jensen asked about having different topics. Career development, freshman/sophomores- soft skills.*

*Action Item: Coordinate another roundtable discussion with students and faculty incorporated into next year's on-campus meeting. Nina Jensen.*

*Department heads and academy members will work with the faculty in their departments to be more actively involved in promoting innovation design projects. Action item met and closed.*

*Action Item: Have department heads report on how they are sharing research efforts with the students. Department Heads*

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*Sullivan reported on the professional development efforts. She asked the council for ideas on areas that would serve their needs to create/maintain a quality workforce.*

*Hicks asked about getting the word out to the community. Sullivan said she worked with some key organizations, such as ACNM, but were looking to expand the network through industry partners.*

*Action item: Identify professional development needs in their respective industries for the College to address through short courses/workshops. Patricia Sullivan, Lisa Webster, Deborah Hicks.*

*Webster asked about distance learning workshops. Sullivan said they would be happy to try that format to address needs.*

*Jacquez asked about more ethics training. Fee-based or contract course are two formats the college has been looking at doing in terms of professional development courses. Sullivan said they were trying to take advantage of summer when faculty are not as tied to schedules.*

*Myers nominates Joseph for chair. Morse seconded.*

*Medina nominated Randy. Randy accepts nomination. Webster seconded.*

*Proposed fall 2015 location: Volt Information Sciences in California is suggested.*

*Proposed fall 2015 meeting dates: Beginning of August- week of Aug. 11- preference Thursday, Friday (13-14).*

*Action Item: Dean Jacquez to discuss proposed fall location with interested council members.*