

Minutes of the Dean's Advisory Council Meeting
NMSU College of Engineering
February 22-23, 2018
NMSU, Las Cruces, New Mexico

Council Attendees

Randolph Rothschild, Chair
Christopher Long, Vice Chair
Jack Davis
Kevin Eades
Harold Foreman
Lou Gomez
Bruce Hayes
Richard Madrid
Wencil McClenahan
Manny Mora
Peggy Morse
Bob Myers
Joseph Perea
Mark Robertson
Wayne Savage
Albert M. Thomas
Bud Waters
Daniel Whiteman

College Personnel

Lakshmi Reddi, Dean
Phillip DeLeon, Associate Dean
Sonya Cooper, Associate Dean
Patricia Sullivan, Associate Dean
Mark Gladden, Development Director
Stephanie Armitage Sichler, Development Director
Sarah Babins, Development
Ray Chen, Mechanical and Aerospace Department
Head
David Jauregui, Civil Engineering Department Head
Thomas Jenkins, Engineering Technology and
Surveying Engineering Department Head
Edward Pines, Industrial Engineering Department
Head
Satish Ranade, Electrical and Computer Engineering
Department Head
David Rockstraw, Chemical and Materials Engineering
Department Head
Linda Fresques, College Chief of Staff

Welcome

Council Chair Randy Rothschild called the meeting to order and welcomed council members and guests.

- September 2017 minutes were approved.
- Action items from fall 2017 meeting were reviewed. Status noted below.
- Dean Reddi will provide a report on the Integrated Design pilot program at the next meeting: to be presented at the next meeting
- Enrollment, retention and graduation rate data by department college-wide will be reported at the next meeting: done
- Updated metrics for the Learning Communities will be reported by Elizabeth Howard next meeting: done
- Linda Fresques will publicize the Research Lecture Series: to be done
- The College Fact Book and Strategic Plan will be shared at the next meeting: done
- Discussion of collaboration with the Physical Science Laboratory will be reported by Dean Reddi at next meeting: done, presentation by Joanne Esparza, PSL director
- Richard Montman will provide spare plane parts to the Design Build Fly Team: Linda Fresques to follow up
- The first day of the next meeting will be devoted to strategic plan discussion: done
- The group would like to have two superstar or new researcher presentations at future meetings and one departmental report: done
- It was recommended that Dan Hicks become a member of the council: done
- The Dean's Advisory Council members can be solicited for recommendations for

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- speakers for the Bromilow and Lockwood lectures: none provided
 - Lab tours might be added on the first day in the morning for those who are present: done
 - Linda Fresques is to resend an updated council roster to members: done
 - Members involved in aerospace engineering are invited to discuss and provide aerospace industry skills and needs to Fresques to be passed along to the MAE Department: none provided

Dean Lakshmi Reddi

Dean Reddi led a discussion on top college priorities.

- **Visibility:** Two new initiatives have been implemented for increasing visibility of the college. One is the creation of Goddard Broadcast, a quarterly newsletter that is widely distributed on campus, with selected constituents and to all engineering deans in the U.S. Two issues have been produced to date. Second, the Informed video ([View Video](#)) will be aired during the month of February. Such exposure is critical to the U.S. News and World Reports rankings, which are important to college enrollment.
- **College Giving:** Stephanie Armitage-Sichler and Mark Gladden were commended for their great work this past year, successfully raising \$90,000 by comparison to the next largest college amount of \$12,000. This is a 57 percent increase from last year's gifts to the college.
- **Enrollment:** Associate Dean Patricia Sullivan recently took over the recruiting effort for the college. At this point, it appears as though enrollments may be approximately 10 percent higher than last year's number. While enrollment is critical to the success of the college, the priority should always be quality over quantity.
- **Retention:** Statistics are not good. Only 1 in 10 students will graduate from the College of Engineering in four years. Only 4 out of 10 will graduate in 6 years. This will be a focus of attention for the college. There is no data available for comparison with our peer institutions. It is recommended that we track retention in the college after a student has successfully completed math 190. The Learning Communities are also a valuable resource for intervention with failing students.
- **Research:** Numbers have been going down in recent years. More funding is needed for Graduate Assistance support which may help relieve the teaching load of researchers. Involving undergraduates in graduate research is mutually beneficial to both groups of students.

Current Challenges:

- **Enrollment:** This impacts the funding of the college and sustainability of the program. The single most factor pulling the college down is peer assessment based on how fellow engineering deans rank us in the U.S. News and World Report. Our rating is 3.1 and our peers rank higher. It's important that we go and tell our story. Jack Davis recommended a book by Arizona State's President Kroll on marketing. Recruiting efforts are to focus on student access to faculty, opportunities for involvement and job availability post-graduation. Our recruiting efforts will focus not on engineering as a field, but engineering at NMSU.
- The college has three outstanding facilities: the Aggie Innovation Space, The Manufacturing Technology and Engineering Center and the Student Project Laboratory.

Reddi has planned to combine and expand these facilities to make the available to all students. He also plans to work with Arrowhead Center to expand entrepreneurial capabilities.

Strategic Plan

Dean Reddi presented a draft preliminary outline of broad goals for the strategic plan. The college has a strategic plan that was developed several years ago in response to a key administrative requirement to align with NMSU's Vision 2020 strategic plan. The problem with this version of the strategic plan is that it is not data driven. This resulted in the College of Engineering Fact Book. While some data is still needed, it does show some trends and some good surprises. Per faculty member, productivity is quite good. Additionally, the strategic plan should not be driven top-down. The college devised a faculty and staff survey to gather their input into the direction the college should take. The college has formed a committee to work on a new strategic plan that is guided by the Fact Book data, survey results and the Regents' outlined trends. There is not a rush to create a vision statement, we just want it to be realistic and develop something that focuses on what is unique about our college based on information collected in the [2016-2017 College Fact Book](#) and the [Strategic Planning Overview](#)

Stephanie Armitage Sichler and Mark Gladden: [Development Update](#)

Fundraising for the Eloy Torrez Family Learning Communities was very successful. Some \$300,000 has been raised for facility renovations and an additional \$650,000 has been raised for endowed and current support of the program.

New fundraising priorities are:

- Capstone Design Program – Endowed directorship and current-use funds for equipment and services.
- Aggie Innovation Space – Current-use and endowment funds for student staff support.
- Leadership Program Scholarship – Current-use and endowed scholarship/travel support.

Armitage and Gladden gave thanks to the council members – the average lifetime giving per Dean's Advisory Council member is \$59,840.

Dr. Luis A. Vázquez, Interim Vice President for Research

Vazquez noted that his office has a very close relationship with the College of Engineering and that the college is taking the lead in involving students in research. His office is in the process of evaluating laboratory facilities on campus to develop an understanding of needs and dynamics and would like to build on those facilities. Engineering is ahead in developing international agreements.

Joanne Esparza, Director, Physical Science Laboratory

Esparza presented a short history of the Physical Science Laboratory and an overview of the work being conducted there.

Dean Lakshmi Reddi

Dean Reddi will table the presentation on the integrated design pilot program until the fall meeting. There are a number of factors that complicate the implementation of this program, namely curriculum and credit hour requirements that vary amongst departments. The college

needs to proceed very cautiously with the development of this program.

Elizabeth Howard, Learning Communities Director: [Eloy Torrez Family Learning Communities Update](#)

There are 15 undergraduate learning facilitators/peer mentors and tutors, as well as some faculty who serve as mentors supporting students in the Learning Communities. In collaboration with Career Services, they have set up sessions for mock interviews, resume building, GRE workshops and held industry-led information sessions. The mentors have led 18 exam review sessions which generally have attendance ranging from 20-70 students.

Approximately one-third of the students visiting the center return.

Bids for the remodeling of the space are open. The remodel calls for more open space and individual rooms.

Research Presentations

- Dr. Pei Xu, Civil Engineering: [Development of Alternative Water Supplies – Water Reuse and Desalination](#)
- Dr. Catherine Brewer, Chemical and Materials Engineering: [Biomass Utilization in New Mexico](#)
- Dr. Wei Tang, Electrical and Computer Engineering: [Low Power Sensing, Processing and Communication Systems](#)

Student Presentations

- Ahmed Baraka: [National Society of Black Engineers](#)
- Nicholas Camp Seifert: [Associated General Contractors](#)

Feb. 22-23 Action Items:

- Dean Reddi will provide a report on the Integrated Design pilot program at the next meeting.
- Linda Fresques will publicize the Research Lecture Series.
- Linda Fresques will follow up with Richard Montman to provide spare plane parts to the Design Build Fly Team.
- Linda Fresques to send the Informed video link to the council members.
- Dean Reddi to add “Get Prepared, Graduate, Get Job and Give Back” to strategic plan student success. Also to add experiential learning to that section.
- Council members to review enrollment and retention data on pages 49-68 of the [2016-2017 College Fact Book](#).
- Dean Reddi to report on the integrated capstone design program at the next meeting.
- Council members to send ideas of speakers for Eloy Torrez Learning Communities to Elizabeth Howard at ehoward@nmsu.edu. Elizabeth to develop a formalized process for implementing this.
- Randy Rothschild challenged other council members to set up meetings with students when on campus.
- Patricia Sullivan (patsulli@nmsu.edu) invites members to help identify needs that the college could provide as professional development programs.
- Linda Fresques will send the list of student groups to members again and connect anyone who wants to get involved with the appropriate group advisers.
- Dean Reddi asked members to consider applying for the NMSU Chancellor’s position.