

# College of Engineering Strategic Plan

## Goal 1: Provide Innovative Educational and Research Programs

### Strategies

- Identify areas and programs representing regional and national workforce needs that match with teaching and research interests of current faculty members or could be leveraged with new resources.
- Increase online presence and expand delivery modes of degree/certificate/training programs.

### Metrics

- Curricular and programmatic opportunities in relevant areas such as advanced manufacturing, cyber security, autonomous systems, space and launch systems and the nexus of food, energy and water systems will be assessed.
- Faculty clusters, proposal submissions, and industrial and interdisciplinary relationships will be launched.
- Programs and curricula will be developed.
- Faculty members hired as appropriate.
- At least one on-line certificate program per department will be offered.

## Goal 2: Promote Faculty and Staff Success

### Strategies

- Hire top-quality faculty/staff with active searches that leverage start-up funds from multiple sources and that impact multiple thematic areas in the college, for example joint appointments.
- Establish faculty and staff development programs such as peer mentoring; workshop, conference and training opportunities; research symposia.
- Increase faculty and staff recognition through awards, professorships, chairs and staff-ships.
- Reward productivity with travel funds; media coverage; flexible teaching loads, graduate assistant allocations; mini-grants supporting seed grants.
- Provide technical support for research proposal development.
- Provide avenues for faculty and staff feedback to administration.

### Metrics

- Annual evaluation scores for all faculty members will increase every year.
- One hundred percent of all faculty members performing in the top quartile of college measures will be retained.

- Every faculty member will rank in the top quartile of at least one college measure of research, teaching or service.
- Every department will have a mentoring program in place for both faculty and staff.
- One hundred percent of staff members earning a performance rating of 8 or above in their annual evaluation will be retained.
- All staff members will be rated at least six or above (meets expectations) on their annual performance evaluations.

### **Goal 3: Promote Student and Alumni Success (3 Gs – Get the degree, Get a job, and Give back)**

#### **Strategies**

- Actively recruit undergraduate and graduate students in all programs offered in the college.
- Improve student retention, time to completion and graduation rates.
- Establish active industry partnerships to sustain and improve student placement for pre- and post-graduation employment or advanced education.
- Increase alumni engagement in college activities; establish a culture of giving back.

#### **Metrics**

- The college will have a five percent increase of students each year.
- At least 20 percent of the total student body will comprise graduate students.
- The college will rank in the top quartile of peer institutions for retention and graduation rates. These measures will be adjusted for post Math 191 students and students who have participated in internships and co-ops.
- One hundred percent of engineering graduates will be employed or pursuing graduate degrees.
- The number of alumni making gifts to the college will increase by five percent.

### **Goal 4: Support Research and Creative/Scholarly Activity**

#### **Strategies**

- Establish thematic areas of research clusters and make them visible.
- Facilitate partnerships with faculty from other colleges, faculty visits to funding agencies, and invest in high-impact research ventures
- Increase graduate student production, with particular emphasis on the doctoral level.
- Increase post-doctoral and research faculty ranks with active partnerships with schools in the U.S. and abroad.
- Increase funding for graduate student stipends and diversify revenue sources.

#### **Metrics**

- Faculty average productivity will rank in the top two quartiles of our peers.
- Each faculty member will have at least \$200K in extramural funding per year.

- Every tenure track faculty member will be ranked in the top quartile of at least one of the college research measures.
- Faculty average advising load will be 2 Ph.D. students per faculty member.
- Faculty average advising load will be 3 M.S. students per faculty member.
- Faculty average ISI paper submission will be 2.5 per year per faculty member.

### **Goal 5: Enhance Outreach and Cooperative Extension**

#### **Strategies**

- Develop and diversify opportunities for revenue-generating programs for the engineering workforce (Professional Development Hours).
- Develop and participate in K-12 programs that are directed to recruit new engineering students.

#### **Metrics**

- Each department will develop and offer at least one revenue-generating professional development training each year.
- Every outreach activity performed in the college will be leveraged as a recruitment opportunity.

### **Goal 6: Develop and Diversify Gifts**

#### **Strategies**

- Increase fundraising activity at both department and college levels.
- Increase funding from foundations and private sources, increase gifts for use other than student scholarships.

#### **Metrics**

- Private funding for the college will increase by 10 percent each year.
- Alumni gifts will increase by 15 percent each year.
- Every unit in the college will participate in fundraising with giving increasing by 5 percent each year.
- Every dollar raised for student scholarships will be matched with funding for other needs, such as retention scholarships, graduate fellowships, chairs and professorships, naming of facilities and programs, special initiatives, etc.

### **Goal 7: Increase Visibility among Peer Institutions**

#### **Strategies**

- Emphasize communication and marketing activities in the college targeted toward peer assessment for ranking.

## Metrics

- NMSU College of Engineering peer assessment score will be in the top quartile of peer institutions.

## Goal 8: Promote Access, Diversity and Internationalization

### Strategies

- Increase representation of women and underrepresented minorities in faculty and student ranks.
- Increase opportunities for students to transfer from New Mexico community colleges and increase partnerships with community colleges.
- Increase collaborations with universities in Mexico, China and India, to establish pipeline agreements for student recruitment, faculty exchange and research opportunities.

### Metrics

- The percentage of female faculty members will be in the top quartile of peer institutions.
- The four-year graduation and four-year retention rates for first-generation, female and ethnic minority students will be on par with the majority segments of the engineering student population.
- Every department will have an active curricular collaboration or student pipeline with at least one community college in the state.
- The college will have collaborative agreements and active student pipelines with at least six universities in Mexico, China or India.