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Dean

A green light to greatness."

UNT

MISSION

The mission of the UNT College of Engineering is to capitalize on the opportunity for innovation and excellence in teaching, research and service. This will be achieved by a strategic alliance among all of the college's constituencies in the region, the state of Texas and the nation. The constituencies involved include foremost our undergraduate and graduate students as well as academic units and industry, particularly in North Texas, so as to foster economic development and promote an academically diverse environment.

VISION

The vision of the College of Engineering is to have the highest quality teaching and research programs in North Texas and beyond:

in strategically selected areas of engineering, engineering technology, and computer science that service the community, industry, and the profession;

in an intellectually stimulating and diverse environment; and in support of industry and economic development.



STRATEGIC PLAN

The strategic plan presents strategies, actions and metrics to develop undergraduate and graduate programs, and enhance the research, reputation and advancement of the UNT College of Engineering (CENG) from its current state in FY 2010 to its desired state in FY 2014 consistent with its mission and vision.

Goal 1: Undergraduate Education

CENG will provide a rigorous educational experience to a diverse student body.

Strategies:

Develop and sustain excellent undergraduate programs that achieve accreditation

Increase the quality of incoming students

Increase retention and facilitate timely graduation

Increase student involvement in their university and their profession

Enhance career development opportunities for students and expand partnerships with employers

Actions:

Actively recruit undergraduate students to achieve moderate growth in the size of the CENG undergraduate body Develop a pool of CENG scholarships to attract the best students

Increase the opportunities CENG undergraduates have to be engaged in CENG, UNT, and the student professional societies Reduce the student to faculty ratio to 22.5 by hiring qualified faculty

Increase the engineering undergraduate enrollment to 8% of the UNT undergraduate enrollment while maintaining a faculty to student ratio of 22.5 to 1

Raise the retention rate of underrepresented students to the same levels as all students



Undergraduate Education Metrics

| METRIC | THEN | NOW |
|---------------------------|-------|-------------------------------------------|
| Total undergraduates | 1430 | 2195 (7.6% - total: 28,911) |
| Student-to-faculty ratio | 21.3 | 25.5 (need 21 additional faculty members) |
| BS/BA students graduating | 124 | 201 |
| Total applicants | 1660 | 1945 |
| % of applicants admitted | 67.7% | 54.0% |
| % yield | 44.9% | 52.0% |
| Math SAT of enrolled | 585 | 611 |
| Total SAT of enrolled | 1107 | 1156 |



Undergraduate Education Metrics

| METRIC | THEN | NOW |
|---------------------------|--------|--------|
| FTIC retention | 70.80% | 74.70% |
| Freshman retention | 69.30% | 71.10% |
| Sophomore retention | 73.30% | 73.10% |
| Junior retention | 75.80% | 80.30% |
| Senior retention | 86.40% | 89.20% |
| UNDERREPRESENTED STUDENTS | | |
| FTIC retention | 66.70% | 73.00% |
| Freshman retention | 68.30% | 68.90% |
| Sophomore retention | 83.30% | 67.30% |
| Junior retention | 66.10% | 75.00% |
| Senior retention | 82.80% | 85.00% |

Undergraduate Education Metrics

| METRIC | ALL | URSinE |
|---------------------|--------|--------|
| FTIC retention | 74.70% | 73.00% |
| Freshman retention | 71.10% | 68.90% |
| Sophomore retention | 73.10% | 67.30% |
| Junior retention | 80.30% | 75.00% |
| Senior retention | 89.20% | 85.00% |



Goal 2: Graduate Education and Research and Scholarship

CENG will provide a rigorous graduate experience to a diverse student body. Students will be engaged in research and scholarship activities. CENG will significantly increase its levels of funded research and scholarly productivity in order to enhance undergraduate and graduate education, contribute to economic growth, and improve CENG's and UNT's standing among peer institutions.

Strategies:

Develop and sustain excellent graduate programs
Increase the quality of incoming students and facilitate timely graduation
Increase the number of doctoral students
Engage students in scholarly and research activities
Increase the level of funded research activity
Increase the scholarly output of tenured and tenure-track faculty
Engage in technology transfer

Actions:

Actively recruit graduate students, especially doctoral students
Support the faculty in identifying funding opportunities and submitting research proposals
Strengthen faculty development, recognition and reward systems that value graduate education, research and scholarship

Encourage the acquisition of patents and copyrights, and IP transfers through UNT



Graduate Education Metrics

| METRIC | THEN | NOW |
|-----------------------------|--------------------|-------|
| Total MS students | 242 | 306 |
| Total PhD students | 58 | 136 |
| Ratio of MS to PhD students | 4.00 | 2.25 |
| MS/PhD graduates | 69/ <mark>9</mark> | 131/9 |
| Total MS applicants | 478 | 511 |
| Total PhD applicants | 40 | 102 |
| % MS admitted | 41.2% | 47.4% |
| % PhD admitted | 57.5% | 52.0% |
| MS yield | 29.0% | 34.3% |
| PhD yield | 47.8% | 47.2% |



Research and Scholarship Metrics

| METRIC | THEN | NOW |
|--------------------------------------|-----------|-----------|
| Total awards | \$3.8M | \$9.2M |
| Total competitive awards | \$3.5M | \$9.2M |
| Per faculty awards | \$75,980 | \$145,683 |
| Per faculty competitive awards | \$69,582 | \$145,683 |
| Total expenditures | \$5.1M | \$9.6M |
| Total competitive expenditures | \$3.1M | \$7.6M |
| Per faculty expenditures | \$102,192 | \$145,473 |
| Per faculty competitive expenditures | \$62,400 | \$114,615 |
| Proposed \$\$ submitted | \$25M | \$63.7M |
| Patents in past 3 years | 1 | 19 |
| Publications | 4.63 | 6.14 |



Goal 3: Enhanced Reputation and Advancement

CENG will distinguish the reputation of its scholarship and research endeavors through an emphasis in the unique creative and innovative abilities represented in its diverse faculty and student body. This focus is inherent; discovery and dissemination of new knowledge represents the essence of the College and it will be manifest through enhanced interactions and relationships with a broad range of external constituents. Such a reputation will inspire involvement and giving by alumni and friends, including corporate partners.

Strategies:

Increase the number of faculty in leadership positions in the profession

Enhance communication activities designed to increase involvement of alumni and friends in the life of CENG

Increase the visibility of CENG through hosted events, media coverage, and participation of industry and academia leaders in CENG activities

Align philanthropic priorities and activities that support the CENG strategic goals, including education, research, and scholarship Increase faculty involvement in public service activities, particularly those activities aligned with their technical expertise, that promote positive visibility for the college

Increase the number of faculty who involve local industry, in some manner or form, with their instructional or research agenda

Actions:

Encourage faculty to take leadership positions in the profession and reward such service

Organize and host community outreach events

Keep alumni and friends of CENG continuously informed

Engage alumni and friends in CENG activities

Advertise the successes of CENG faculty and students

Identify giving priorities for CENG

Increase donations to CENG

Encourage faculty to become involved in public service activities and reward such service

Encourage the building of interdisciplinary relationships with other programs within UNT and with other institutions

Encourage faculty to actively interact with industry (e.g., guest speakers for classes, field trips for students, small scale material/equipment donations, etc.) and reward such interaction



Reputation and Advancement

| METRIC | THEN | NOW |
|----------------------------------------------------|-----------|-----------|
| Total/pctg of CENG faculty in leadership positions | 21/41% | 28/42% |
| Number of members of CENG IAB | 14 | 22 |
| Companies at Career Fair | 19 | 120 |
| Posted Internships | 307 | 946 |
| Donations by individuals | \$8,094 | \$41,101 |
| Donations by corporations | \$416,247 | \$346,468 |

