# **School of General Engineering**

## Mission

The school of General Engineering provides basic engineering courses that prepare students for professional engineering school study, student services for lower division engineering students, and offers interdisciplinary master's degree programs of study.

## Vision

The School of General Engineering will:

- Provide an excellent learning environment that helps lower division engineering students to achieve academic excellence and prepares them to study upper division engineering topics;
- Provide nationally recognized interdisciplinary graduate programs that fulfill the professional needs of students and their employers;
- Provide an environment in which students thrive and continue to strive for personal and professional fulfillment; and
- Continually improve the services provided through performance assessment and continuous quality improvement efforts.

### **Core Values:**

**Excellence** – We seek excellence in all our endeavors, and we are committed to continuous improvement.

**Intellectual Freedom** – We believe in ethical and scholarly questioning in an environment that respects the rights of all to freely pursue knowledge.

**Integrity** – We are committed to the principles of truth and honesty, and we will be equitable, ethical, and professional.

**Service** – We believe that serving others is a noble and worthy endeavor.

**Diversity** – We respect others and value diversity of opinion, freedom of expression and other ethnic and cultural backgrounds.

**Stewardship of Resources** – We are dedicated to the efficient and effective use of resources. We accept the responsibility of the public's trust and are accountable for our actions.

**Collegiality** – We believe an open and collegial environment facilitates the professional growth and potential of students, faculty, and staff.

# Goals, Critical Success Factors, Objectives, and Strategies

Goal One. Academic Excellence -- Provide excellent instruction and advising for students in courses and programs.

#### **Critical Success Factors:**

- Evaluation of three alternate teaching methods in the next five years based on improved learning efficiency and effectiveness.
- Undergraduate student performance in professional school courses.
- Engineering students perform above the national average on the Fundamentals of Engineering examination.
- Placement and salary rates for graduates of the graduate programs that are equivalent or better than those from comparable programs at peer institutions.
- Reduce the average discussion section size from 32 to 24 students.
- Increase the average comprehensive ACT score of entering freshmen by 1.0.
- Student satisfaction with advising as measured by the CIRP and NSSE surveys above that for peer institutions.

## Objectives:

**Objective 1.1:** Provide excellent instruction in all courses.

#### Strategies:

- Add an additional 0.5 FTE faculty member in the core courses to allow for rotation from classroom teaching to instructional development.
- Increase the number of Teaching Assistants assigned to core courses by 20%.
- Annually review the graduate programs with industrial/employer advisory boards and adjust program content to satisfy their needs.

**Objective 1.2:** Encourage student development outside the classroom.

- Creation of electronic review materials to help students prepare for the Fundamentals of Engineering examination.
- Encourage students to participate in regional and national academic competitions and to accept student leadership positions.

**Objective 1.3:** Effective new student recruiting and superior advising for all students.

- Hire a full time advisor/recruiter for CEAT programs at OSU-Tulsa.
- Add an additional 1.0 FTE for CEAT recruiting and advising in Stillwater.
- Automate student record entry to relieve advisor time for recruiting and student advising.

Goal Two. Transfer Students -- Work with other Oklahoma institutions so their students are prepared to transfer into engineering, architecture and engineering technology programs at Oklahoma State University.

#### **Critical Success Factors:**

- At lease 20 engineering science courses taught at other Oklahoma transfer institutions are equivalent to ENSC prefix courses taught at OSU.
- CEAT retention and graduation rates for transfer students are within 20% of the rates for students who started at OSU and have made similar progress in their programs.
- Face-to-face contact between CEAT advisors or course instructors and their counterpart occurs with 30% of the Oklahoma transfer institutions each year.
- Selected ENSC prefix courses will be available for distance delivery to students at transfer institutions.

## **Objectives**

**Objective 2-1:** Assure that courses at other Oklahoma institutions prepare the transfer students for CEAT programs.

# Strategies:

- CEAT instructors will visit with counterparts at transfer institutions about course coordination.
- Share information on the instruction of core courses with other institutions.
- Evaluate courses taught at other institutions for equivalence with ENGR and ENSC courses taught at OSU.
- Evaluate the performance of transfer students in CEAT programs and courses.

**Objective 2-2:** Coordinate advising and courses with transfer institutions.

- CEAT Advisors will visit transfer institutions to discuss transfer advising and will recruit students.
- Share information on degree and course requirements and expectations for all CEAT programs.

# Goal Three. Diversity -- Increase the diversity of students completing CEAT programs and those persons supporting the programs.

#### **Critical Success Factors:**

- In five years, the fraction of CEAT bachelor degree graduates in each underrepresented ethnic and gender group should be half or more of the fraction that group represents in the Oklahoma population.
- At least 75% of the students completing graduate programs administered in the School of General Engineering should be U.S. citizens or permanent residents.

# Objectives:

# **Objective 3.1:** Diversify the student body.

# Strategies:

- Recruit female, Hispanic, African American and Native American students for both undergraduate and graduate programs.
- Strive for appropriate student representation and accommodation across economic levels, religious beliefs, learning styles, previous experience, physical and mental abilities.
- Provide retention enhancing support programs and scholarships for undergraduate students in underrepresented groups.
- Offer graduate programs that are attractive to working professionals.

**Objective 3.2:** Involve constituents and employee persons who represent the full range of diversity.

- Aggressively seek instructors and faculty position applications from qualified persons of underrepresented groups.
- Involve constituents who represent the breadth of persons served.
- Define diversity to include at least the following characteristics:
  - o age and experience
  - o economic status
  - o education and training
  - o employment history
  - o gender
  - o race, nationality, and ethnicity
  - o religion
  - o physical and mental abilities and
  - o ways of learning and thinking.