

Electrical Engineering Technology

Mission

The Electrical Engineering Technology Department prepares future technologists to enrich lives and enhance society through professional level performance within the engineering enterprise.

Vision

The program will become the outstanding Electrical Engineering Technology Department in the region.

To accomplish this, the department faculty will:

- Prepare students as life-long learners, intellectually and ethically prepared to serve and lead in a world wide economy.
- Deliver quality instruction based on scientific, technical & mathematical fundamentals, which are supported by practical experiences and deliver applications in support of economic development.
- Advance their own scholarship through new methods of instruction, applied research programs and outreach delivery.
- Provide leadership in outreach activities in both its content and delivery modes to local, national, and international communities.
- Support diversity, academic freedom, high aspirations, and mutual respect.

Core Values

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

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

Service - We believe that serving others is a noble and worthy endeavor, and we seek to provide exceptional service.

Intellectual Freedom – We respect the rights of all to pursue knowledge in an unfettered manner.

Excellence –We seek excellence in all our endeavors, aspire to new heights, and are committed to continuous quality improvement.

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.

Goals, Objectives, Critical Success Factors, and Strategies

Goal 1. Academic and Research Excellence: Transition the current Electrical Engineering Technology program with TAC/ABET accreditation to remain an accreditable program with options in Electronics and Electro-Mechanical Engineering Technology.

Critical Success Factors:

- University administration supports proposal.
- Complete all of the administrative requirements and have the necessary resources in place for the next ABET General Review.
- TAC/ABET accreditation.
- Approval from The Oklahoma State Regents for Higher Education (OSHRE).
- 70% Student/Alumni support for proposal.
- Research expenditures (includes in-kind equipment) of \$25,000 per year per FTE.
- Publish at least one peer-reviewed article per year per FTE.
- Overall instructor and course evaluations of 3.25 on a 4.0 scale (based on student surveys of instruction).
- 25% of faculty conducting professional development/continuing education courses each year.
- Every faculty member to be engaged in some on-campus or off-campus research or outreach program.
- 35% of graduates having significant involvement in EET professional society activities.
- At least one (1) Wentz Research Scholar application per year.
- 35% of graduates having internships, co-op study, or other engineering technology work experience.
- 50% of graduates having significant involvement in student professional societies.
- All undergraduates employed within 3 months of graduation.

Objectives:

Objective 1.1: Obtain support and resources for the program.

Strategies:

- Finalize proposal for department changes including a specification of resources and faculty required to accomplish the plan.
- Develop undergraduate program outlines and course descriptions.
- Develop a communications plan to inform current students, alumni, and the general public about the proposed changes.

Objective 1.2: Significantly expand the current research effort.

Strategies:

- Use industry based field projects, which will be part of the master's program described in Goal 2 (described below), to provide entree to companies in order to obtain research funding.
- Hire new faculty with proven track records in electro-mechanical research.
- Hire new faculty with proven track records in systems research.

Objective 1.3: Significantly expand student and faculty development.

Strategies:

- Foster student development through their ~~formalized participation in the IAB~~, student professional societies and continuous quality improvement program.
- Provide financial support for student professional activities and travel.

Goal 2. Access and Diversity: Recruit, retain, and graduate a larger, more academically prepared, and more diverse student body.

Critical Success Factors:

- 350 undergraduate students.
- Increase diversity of the student population and faculty in proportion to the State's population.
- Concurrent programs to be developed in Oklahoma City and Tulsa.
- Master's degree approved by The Oklahoma State Regents for Higher Education (OSHRE). [Assumes support from Administration.]
- 20 graduate students.

Objectives:

Objective 2.1: Recruit more undergraduate students into Electrical Engineering Technology (EET)

Strategies:

- Support the College of Engineering Architecture and Technology recruiting efforts with special emphasis on underrepresented groups.
- Enlist the assistance of the EET's department's Industrial Advisory Board (IAB) in recruiting.

Objective 2.2: Establish an applications-oriented master's degree program.

Strategies:

- Obtain the necessary approvals for the graduate program.
- Hire new faculty in a timely manner to facilitate the delivery of a graduate degree. Special emphasis to be placed on recruitment of underrepresented groups.
- Develop graduate program outlines and course descriptions with input from alumni and IAB members to meet the requirements set by OSHRE
- Identify target industries and establish a marketing program for the new master's degree.

Goal 3. Engagement: Provide programs and services that disseminate knowledge and skills and that enhance the quality of life.

Critical Success Factors:

- Develop at least one course with a service-learning component.

Objectives:

Objective 3.1: Foster community involvement in the department.

Strategies:

- Identify opportunities for community involvement.
- Identify at least one course that will include a service-learning component.

Objective 3.2: Become a full-service organization that incorporates research initiation and performance, application development, technical training and industry involvement that supports state and national needs.

Strategy:

- Use the Oklahoma Inventor's Assistance Service & the Ground Source Heat Pump Center as a model.

Goal 4. Technology: Benefit from the use of technology in the delivery of services.

Critical Success Factors:

- Maintain a quality Internet presence.
- Provide for all courses to have an internet or technology based support component.
 - OSU/OKC
 - OSU/TUL

Objectives:

Objective 4.1: Develop supplemental courseware to be made available on the Internet.

Strategies:

- Provide reduced teaching loads for faculty developing Internet learning components.
- Request additional funding to develop the use of technology in the classroom.

Objective 4.2: Develop distance education ready graduate courses.

Strategy:

- Establish creative delivery options for the master's degree at OSU/OKC and OSU/TUL.

Goal 5. Partnerships/Collaborations: Build strategic partnerships and alliances with external entities.

Critical Success Factor (*measures of the degree of success over the next 5 years*):

- Articulation agreements with junior and/or community colleges. Special working relationship with OSU/OKC and OSU/TUL

Objective:

Objective 5.1: Develop partnerships with other educational institutions.

Strategy:

- Identify partnerships that would help to increase enrollment and opportunities for joint research proposals.

Goal 6. Human Resources and Infrastructure: Maintain a quality workforce and work environment.

Critical Success Factors (*measures of the degree of success over the next 5 years*)

- 3 new faculty positions for masters program (shared between MET and EET).
- 1 new staff position.
- Maintain and fund staff training and development.

Objective:

Objective 6.1: Recruit and retain quality faculty and staff.

Strategies:

- Recruit faculty who can make an immediate contribution to the new masters program.
- Obtain additional office space for new faculty, and laboratory space for their research.
- 25% of faculty and staff participate in a formal training program appropriate for their position or faculty rank.

Goal 7. Tradition and Pride: Enhance the image of the Department of Electrical Engineering Technology.

Critical Success Factors (*measures of the degree of success over the next 5 years*):

- Host at least one multi-department event per year
- Recognize at least one alumnus per year who has achieved a significant leadership role.

Objective:

Objective 7.1: Instill tradition and pride in being a member or an alumnus of the department.

Strategies:

- Host student a event that incorporates participants from across the campus.
- Develop a departmental means of recognizing alumni.

Goal 8. Financial Stability: Strengthen Financial Resources.

Critical Success Factor (*measures of the degree of success over the next 5 years*):

- Increase annual alumni gifts by 50%.

Objective:

Objective 8.1: Instill tradition and pride in being a member or an alumnus of the department.

Strategies:

- Enlist the help of the department's IAB in fund raising.
- Issue at least one Newsletter per year with an insert for giving

Goal 9. Accountability: Enhance planning, performance, assessment, and public accountability.

Critical Success Factors (*measures of the degree of success over the next 5 years*):

- Obtain TAC/ABET accreditation for an undergraduate Electro-Mechanical option.

Objectives:

Objective 9.1 Develop a stable and productive workforce.

Strategy:

- Conduct mid-probationary-period reviews of tenure track faculty and lecturers.

Objective 9.2 Develop a continuous improvement process.

Strategies:

- Establish an ABET assessment database.
- Review assessment results with faculty and staff at least once every six months as part of a continuous improvement process.