

Electrical Engineering Technology

B. S.

Expanded Statement of Institutional Purpose

Institutional Mission Reference

The BS degree program in Electrical Engineering Technology offers a high quality degree program that meets national standards of excellence. It is a significant component of the University's commitment to science, engineering, and technology, particularly in fields of major importance to the region. Through the University's TELETECHNET distance learning program, the Electrical Engineering Technology program provides opportunities for technical personnel throughout the state and elsewhere to enhance their education and pursue baccalaureate level studies. Simultaneously, the program supports the general education components that yield a well-rounded graduate who is aware of societal needs and issues.

Institutional Goal(s) Supported

The BS degree program in Electrical Engineering Technology supports the University goals of (a) quality undergraduate programs, (b) quality teaching, (c) application of engineering principles to serve the local community through applied research and development, (d) distance education through TELETECHNET utilizing state-of-the art delivery methods, and (e) life-long learning. The major strategic initiatives supported by the department are Strategic Initiative 1 (High-Quality, Distinctive Undergraduate Programs), Strategic Initiative 5 (Distance Education), and Strategic Initiative 10 (Strengthen and extend the existing relationships with community colleges, the U. S. Navy, and industry.)

Intended Educational (Student) Outcomes, Methods for Assessment, Criteria for Success, Assessment Results, and Use of Results

Intended Outcome 1

Graduates of the Electrical Engineering Technology program will demonstrate that they have achieved a satisfactory mastery of the knowledge, techniques, skills, and modern tools of their discipline.

Method for Assessing Outcome 1 and Criterion for Success: 100% of graduates will earn at least satisfactory levels of performance on the technical portions of their senior project course(s) and 50% will earn good or excellent evaluations. Evaluations will be performed by a faculty team with industry representatives when appropriate. Comparisons will be made between the performance of on-campus students and TELETECHNET students on this measure.

Summary of Assessment Data Collected for Outcome 1: Ten EET students completed the senior design project course in the 2000-2001 academic year, with their performance evaluated by three EET faculty. Of these 80% received a performance evaluation of

excellent, 20% received a below average grade evaluation. Of these ten students, six were TELETECHNET students, and all six received excellent evaluations.

Alternate Method for Assessing Outcome 1 and Criterion for Success: 100% of graduates will earn at least satisfactory levels of performance on the technical portions of their junior and senior laboratory courses and 50% will earn good or excellent evaluations. The total evaluations will be based on input from at least three faculty members. Comparisons will be made between the performance of on-campus students and TELETECHNET students on this measure.

Use of Assessment Results from Intended Outcome 1 to Improve Academic Program: The desired outcome has been addressed. As more students graduate under the newer academic requirements, larger sample sizes will become available. However, it has been noted that those students working with support of an industrial partner achieved a higher evaluation, which indicates that more industrial involvement is warranted.

Intended Outcome 2

Students will communicate effectively in writing.

Method for Assessing Outcome 2 and Criterion for Success: 100% of graduates will earn at least satisfactory levels of performance on the written portions of their senior project course(s) and 50% will earn good or excellent evaluations. Evaluations will be performed by a faculty team with industry representatives when appropriate. 100% of graduates will pass the Exit Writing Examination. Comparisons will be made between the performance of on-campus students and TELETECHNET students on this measure.

Summary of Assessment Data Collected for Outcome 2: Of the 10 students in the senior design project course, 70% received a performance rating of excellent on the written portion, 20% a rating of good, and 10% a rating of satisfactory. 100% of the graduates passed the Exit Writing Exam.

Alternate Method for Assessing Outcome 2 and Criterion for Success: 100% of graduates will earn at least satisfactory levels of performance on the written portions of their junior and senior laboratory courses and 50% will earn good or excellent evaluations. The total evaluations will be based on input from at least three faculty members. 100% of graduates will pass the Exit Writing Examination. Comparisons will be made between the performance of on-campus students and TELETECHNET students on this measure.

Use of Assessment Results from Intended Outcome 2 to Improve Academic Program: The desired outcome has been satisfactorily addressed. It was noted by the

faculty who evaluated these students that technical writing skills improved significantly during the course, indicating that more emphasis on technical writing assignments in other courses should be considered.

Intended Outcome 3

: Students will give clear and effective oral presentations.

Method for Assessing Outcome 3 and Criterion for Success: 100% of graduates will earn at least satisfactory levels of performance on the oral presentations in their senior project course(s) and 50% will earn good or excellent evaluations. 100% of graduates will earn at least minimum passing grades in a required course in Public Speaking.

Alternate Method for Assessing Outcome 3 and Criterion for Success: 100% of graduates will earn at least satisfactory levels of performance on the oral presentations in their junior and senior laboratory courses and 50% will earn good or excellent evaluations. The total evaluations will be based on input from at least three faculty members. Comparisons will be made between the performance of on-campus students and TELETECHNET students on this measure. 100% of graduates will earn at least minimum passing grades in a required course in Public Speaking.

Summary of Assessment Data Collected, Alternate Method for Outcome 3: Of the ten students who completed the senior design project course in the 2000-2001 academic year, seven were evaluated to be excellent in the area of oral presentations, two were good, and one satisfactory. Additionally, all students successfully completed COMM 101R oral communications.

Use of Assessment Results from Intended Outcome 3 to Improve Academic Program: With more students now beginning to graduate under the new departmental requirements, we will be able to collect more data in this area. However, initial results are encouraging.

Intended Outcome 4

Graduates will demonstrate sound educational preparation and competence in their profession through successful career progress.

Method for Assessing Outcome 4 and Criterion for Success: By means of triennial surveys, 75% of graduates who respond will evaluate their career progress as at least comparable to and 25% will evaluate their career progress as higher or much higher than that of graduates of similar programs at other institutions. Comparisons will be made between the performance of on-campus students and TELETECHNET students on this measure.

Summary of Assessment Data Collected for Outcome 4: Alumni surveys will begin in the 2001-2002 academic year.

Intended Outcome 5

Employers will demonstrate that the educational preparation of graduates is substantial.

Method for Assessing Outcome 5 and Criterion for Success: By means of triennial surveys, 75% of supervisors who respond will evaluate the educational preparation of our graduates to be at least comparable to and 25% will evaluate their educational preparation to be somewhat or much higher than that of graduates of similar programs at other institutions. Comparisons will be made between the performance of on-campus students and TELETECHNET students on this measure.

Summary of Assessment Data Collected for Outcome 5: Employer surveys will be conducted in the 2001-2002 academic year.

Intended Outcome 6

Overall, the faculty, curriculum, laboratories, and equipment of the Electrical Engineering Technology program will demonstrate nationally recognized quality standards.

Method for Assessing Outcome 6 and Criterion for Success: The program will continue to maintain accreditation by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET).

Summary of Assessment Data Collected for Outcome 6: The program is currently accredited by TAC of ABET with a report due in Spring 2002.