

ACADEMIC AFFAIRS

Mission Statement, Program Outcomes, and Assessment For Associate Degree in Electronic Engineering Technology

Mission Statement:

The mission of the Electronic Engineering Department is to provide the student with a quality well-rounded education. This, in turn, will enhance the student's economic and social well-being and provide industry with a highly skilled work force.

Program Outcomes:

Electronic Engineering Technology

Graduates with a degree in Electronic Engineering Technology should be able to demonstrate knowledge and skills in the following areas:

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| A. Demonstrate a working Knowledge of Programmable Controllers | EGR 112, EGR 120, EIT 224 |
| B. Demonstrate a working Knowledge of Distributive Control Systems and PLCS | EIT 212, EIT 244, EIT 220 |
| C. Repair and Calibrate Electronic/Pneumatic Instrumentation | EET 111, EET 112, EET 131, EET 141, EET 145, EIT 110, EIT 211, EIT 212, EIT 215, EIT 220, EIT 242, EIT 244 |
| D. Use Calibration Instruments | EET 111, EET 112, EET 131, EET 141, EIT 110, EIT 211, EIT 212, EIT 220, EIT 242, EIT 244 |
| E. Troubleshoot Systems | EIT 211, EIT 212, EIT 215, EIT 220, EIT 242 |
| F. Demonstrate a Basic Working Knowledge of Valves | EIT 110, EIT 211, EIT 212 |
| G. Tune Control Loops | EIT 211, EIT 212 |

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H. Install Electronic & Pneumatic Instrumentation	EIT 211, EIT 212, EIT 215, EIT 226, EIT 242, EIT 244
I. Demonstrate Basic Working Knowledge of Speed Controls (Inverter, AC/DC Drives, Servo)	EET 227
J. Practice Safety	EET 111, EET 112, EET 131, EET 141, EET 145, EIT 110, EIT 211, EIT 212, EIT 215, EIT 220, EIT 242, EIT 244, EET 227
K. Exhibit Professionalism	EET 111, EET 112, EET 131, EET 141, EET 145, EIT 110, EIT 211, EIT 212, EIT 215, EIT 220, EIT 242, EIT 244, EET 227, ECO 201, EGR 101, EGR 106 EGR 107, EGR 112, ENG 155, ENG 165, HSS 101, MAT 178, MAT 179
L. Communicate	EET 111, EET 112, EET 131, EET 141, EET 145, EIT 110, EIT 211, EIT 212, EIT 215, EIT 220, EIT 242, EIT 244, EET 227, ECO 201, EGR 101, EGR 106 EGR 107, EGR 112, ENG 155, ENG 165, HSS 101, MAT 178, MAT 179
M. Maintain Analytical Equipment	EIT 211
N. Computer Skills	EET 111, EET 112, EET 131, EET 141, EET 145, EIT 110, EIT 211, EIT 212, EIT 215, EIT 220, EIT 242, EIT 244, EET 227, EGR 101, EGR 106 EGR 107, EGR 112
O. Team Player	EET 111, EET 112, EET 131, EET 141, EET 145, EIT 110, EIT 211, EIT 212, EIT 215, EIT 220, EIT 242, EIT 244, EET 227, ECO 201, EGR 101, EGR 106 EGR 107, EGR 112, ENG 155, ENG 165, HSS 101, MAT 178, MAT 179

Assessment Methods:

Direct Student Learning Outcomes

This program has a capstone course, EIT 242, Senior Project. It includes direct assessment of student performance, including a series of projects that assess the student's overall understanding and physical abilities to perform all of the competencies in the program. In the past year 100% of the capstone course students that finished the course received a C or better.

Indirect Student Learning Outcomes

The Program faculty review the following indirect measures of student and program success yearly, or as needed, to ensure program viability: grade distribution and failure rates; student evaluations; job placement results; employer satisfaction survey; enrollment statistics; retention rates, and graduation rates.

Retention

OCtech Benchmark #1 – The program will have retained in the following Fall semester not less than 60% of the new students who enrolled in the prior Fall semester.

- Over the last three years, program retention has been: 2002 (45%), 2003 (44%), and 2004 (57%).

Job Placement

OCtech benchmark #2 – Using the State Technical College System definitions for employment, not less than 80% of the graduates of the program will have secured employment in the field.

- Over the part three years, job placement has been: 2001 (100%), 2002 (100%), and 2003 (100%)

Graduation Rates

OCtech benchmark #3 – The number of graduates will average 25% of the average annual fall enrollment for the program.

- Over the past three years, graduation rates have been: 2001-2002 (14.9%), 2002-2003 (15.8%), and 2003-2004 (9.5%).

Internal Measures of Success

Direct measures of soft skills and academic/program foundation skills:

- ACT Work Keys: Students will score a 3 or better on all areas of Work Keys.
- 90% of Capstone course students will achieve a grade of C or better.

Indirect measures of program success

- Maintain or exceed an 80% or better level of job placement.

- Reinststitute an Employer Satisfaction Survey to be implemented at the end of the Spring semester 2005.
- Improve retention over the FY03-04 Benchmark.
- Incorporate 100% of validated DACUM competencies into Electronic Engineering course outlines with demonstrated student performances.

Review Process and Use of Results:

Electronic Engineering Technology is a competency-driven curriculum. Its competencies are determined through qualified DACUM panels and are validated by industry professionals and the curriculum's own advisory committee. DACUMS are usually conducted every four years to ensure currency with the last DACUM occurring March 2002. In between each DACUM the program faculty performs the following internal processes yearly as part of the strategic planning and review process.

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- Ensure that program outcomes are appropriate and current.
- Ensure that program outcomes are addressed in the exit competencies of at least one required course.
- Ensure that within those required courses that students demonstrate the desired program outcome either through written or performance-based tests and/or graded assignment.
- Ensure that equipment inventory, facilities, and budget support program outcomes and the strategic plan.
- Ensure that successful completion of prerequisite courses is a satisfactory predictor of student success in subsequent courses.
- Monitor student performances in the capstone course against DACUM competencies.
- Review grade distribution and failure rates; student evaluations; job placement results; employer satisfaction survey; enrollment statistics; retention rates, and graduation rates.
- Ensure that the College Library can assure access to appropriate and current research materials.
- Provide feedback to the general education faculty on observed general education competencies and make recommendations as needed.
- Make a report to the advisory committee on assessment findings and solicit feedback.
- Work with Division Dean and the Curriculum Committee to revise syllabi and/or course/department offerings as needed.
- Conduct program self study as required by accrediting agencies.

What action(s) did the Program take this past academic year that improved and expanded student-learning outcomes?

Changes have been made within the Electronic Engineering Technology program to improve student success based on recommendations from our advisory committee, instructors, and DACUM panel. The DACUM panel consists of members of local industry who would be in the positions to hire our graduates or hold the same types of jobs as our graduates. The Panel meets separately from the Advisory Committee to discuss the competency requirements of the program and make recommendations for changes.

Electronic Engineering Technology Actions

Local industry satisfaction remains high so no actions have been taken in program or DACUM areas.

Benchmark #1 Plan of Action: Retention has been an issue that program faculty attempt to address each year. Instructors are available to students for tutoring, have extended office hours, and can almost guarantee students a job upon graduation. Campus wide services are available to support students as well. Program faculty will continue to look for alternate methods to promote student success.

Benchmark #3 Plan of Action: Because retention is low, graduation rates are low as well. Program faculty are looking at integrating modules from the National Center on Construction, Education, and Research into the existing curriculum to assist students in their completion of the program. The employment outlook for EET graduates is bountiful and faculty will continue to support student success.