

ACADEMIC AFFAIRS

Mission Statement, Program Outcomes, and Assessment For Associate Degree in Industrial Electronics Technology

Mission Statement:

The mission of the Industrial Electronics Technology program is to provide comprehensive education and training programs which will have a positive social and economic impact on curriculum graduates seeking employment and a career in the industrial electronic technology field.

Program Outcomes:

Industrial Electronics Technology

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

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|-------------------------------|---|
| A. Practice Industrial Safety | EEM 115, EEM 116, EEM 121, EEM 131, EEM 140, EEM 145, EEM 160, EEM 165, EEM 215, EEM 221, EEM 230, EEM 235, EEM 252, EET 261, EET 213, EGR 112, EGT 172, ELT 208, ELT 218, MET 224, |
| B. Practice Professionalism | EEM 115, EEM 116, EEM 121, EEM 131, EEM 140, EEM 145, EEM 160, EEM 165, EEM 215, EEM 221, EEM 230, EEM 235, EEM 252, EET 261, EET 213, EGR 112, EGT 172, ELT 208, ELT 218, MET 224, ENG 155, ENG 165, MAT 170, PHI 101, PSY 103 |
| C. Communicate | EEM 115, EEM 116, EEM 121, EEM 131, EEM 140, EEM 145, EEM 160, EEM 165, EEM 215, |

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	EEM 221, EEM 230, EEM 235, EEM 252, EET 261, EET 213, EGR 112, EGT 172, ELT 208, ELT 218, MET 224, ENG 155, ENG 165, MAT 170, PSY 103
D. Interpret Schematics	EEM 115, EEM 116, EEM 121, EEM 131, EEM 140, EEM 145, EEM 160, EEM 165, EEM 215, EEM 221, EEM 230, EEM 235, EEM 252, EET 261, EET 213, EGR 112, EGT 172, ELT 208, ELT 218, MET 224, MAT 170
E. Operate Test Equipment (Read & Interpret)	EEM 115, EEM 116, EEM 121, EEM 131, EEM 140, EEM 145, EEM 160, EEM 165, EEM 215, EEM 221, EEM 230, EEM 235, EEM 252, EET 261, EET 213, EGR 112, EGT 172, ELT 208, ELT 218, MET 224, MAT 170
F. Repair Electronic Equipment & Systems	EEM 115, EEM 116, EEM 121, EEM 131, EEM 140, EEM 145, EEM 160, EEM 165, EEM 215, EEM 221, EEM 230, EEM 235, EEM 252, EET 261, EET 213, EGR 112, EGT 172, ELT 208, ELT 218, MET 224, MAT 170
G. Calibrate Equipment	EEM 115, EEM 116, EEM 121, EEM 131, EEM 140, EEM 145, EEM 160, EEM 165, EEM 215, EEM 221, EEM 230, EEM 235, EEM 252, EET 261, EET 213, EGR 112, EGT 172, ELT 208, ELT 218, MET 224, MAT 170
H. Operate Computers (Micro-processors, programmable controllers)	EEM 115, EEM 116, EEM 121, EEM 131, EEM 140, EEM 145, EEM 160, EEM 165, EEM 215, EEM 221, EEM 230, EEM 235, EEM 252, EET 261, EET 213, EGR 112, EGT 172, ELT 208, ELT 218, MET 224, MAT 170
I. Motion Control	EEM 131, EEM 145, EEM 215, EEM 221, EEM 230, EEM 252, ELT 127, ELT 208, ELT 218
J. Knowledge	EEM 140, MAT 170

Assessment Methods:

Direct Student Learning Outcomes

This program has a capstone course, EET 273, Electronics 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 only 87% of students finishing the capstone course achieved a C or better. With the small student enrollment this only constitutes one student that was not successful.

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 (64%), 2003 (53%), and 2004 (43%).

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 past three years, job placement has been: 2001 (79%), 2002 (100%), and 2003 (88.8%)

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 (26.19%), 2002-2003 (37.14%), and 2003-2004 (18.18%).

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.
- Re institute an Employer Satisfaction Survey to be implemented at the end of the Spring semester 2005.
- Incorporate 100% of validated DACUM competencies into Industrial Electronics course outlines with demonstrated student performances.

Review Process and Use of Results:

Industrial Electronics 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 Industrial Electronics 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.

Industrial Electronics Technology Actions

Local industry satisfaction remains high according to comments from the IET Advisory Committee. Graduates are employed and industry continues to be satisfied with their knowledge and work skills.

Benchmark #1 Plan of Action: Program retention continues to be an issue that the IET program faculty attempt to address every year. A number of support mechanisms are in place for students (tutoring, extended office hours,), but students fail to take advantage of the opportunities. To ensure the ability of our students, Work Keys testing will be implemented to determine the workforce readiness of IET students. Those students not meeting the established standard will be given the opportunity to work on Key train software for remediation in reading, math, and locating information in addition to classroom instruction and other academic support services.

Benchmark #3 Plan of Action: The IET program is the only electronics program with evening classes. Because of the limited number of courses evening students are able to enroll in per semester, it takes longer for students to graduate. The IET program faculty plan to study the feasibility of implementing web based courses for students to assist in their progression through the IET curriculum.

Two major pieces of equipment were replaced in the last year to stay current with the changing work place. We developed a new partnership with Lake Marion High School to assist the local community and broaden our base of qualified applicants. Developed a robotic controlled "Gater" to serve as our mascot to the High School.