Program Outcomes Assessment

BS in Electronics Engineering Technology

Created on: 01/15/2010 07:22:00 AM CST
Last Modified: 12/10/2014 07:05:34 AM CST

Table of Contents

General Information (Program Outcomes Assessment)

Standing Requirements

Mission Statement

The Department of Electronics, Computer, and Engineering Technology at Indiana State University is to prepare students for careers as technical professionals in an environment that involves applications in design, manufacture, control and integration of electro-mechanical products or systems, and requires a practical problem solving approach that emphasizes hands-on skill with modern productivity tools (e.g. design, analysis, control, diagnostic, and project management tools).

Outcomes Library

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

Outcome	Mapping
SLO 1.1: Application of circuit analysis and design	No Mapping
SLO 1.2: Application of circuits, design, and application	No Mapping
SLO 1.3: Application of digital electronics	No Mapping
SLO 1.4: Application of computer programming and software	No Mapping
SLO 1.5: Apply science, math, and engineering tools Students will apply science, math, and engineering tools.	No Mapping
SLO 1.6: Apply PLCs, Robotics, and control system equipment Students will apply PLC's, Robotics, and control system equipment.	No Mapping
SLO 1.7: Engineering materials and manufacturing processes Students will use fluid power, engineering materials and manufacturing processes.	No Mapping
SLO 1.8: Management techniques and processes	No Mapping

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

Outcome	Mapping
SLO 2.1: Use mathematics in design Students will use mathematics in design.	**Foundational Studies:** IIIa. Quantitative Literacy
SLO 2.2: Modeling for analysis	No Mapping
SLO 2.3: System design	No Mapping

Program Objective C: Experiment and apply results

Students will experiment and apply results.

Outcome	Mapping
SLO 3.1: Conduct experiments Students will conduct experiments.	No Mapping
SLO 3.2: Analysis and interpretation of laboratory exercise	No Mapping
SLO 3.3: Test plans	No Mapping

Program Objective D: Be creative in design and application

Students will be creative in design and application.

Outcome	Mapping
SLO 4.1: Circuit design	No Mapping
SLO 4.2: Software and program development	No Mapping
SLO 4.3: System design and control	No Mapping

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

Outcome	Mapping
SLO 5.1: Effective team member	No Mapping
SLO 5.2: Understands the purpose of teams Students will understand the purpose of teams.	No Mapping
SLO 5.3: Works and communicates well in the team setting Students will work and communicate well in the team setting.	**Foundational Studies:** 10. Express themselves effectively, professionally, and persuasively both orally and in writing.

Program Objective F: Effective problem solving

Outcome	Mapping
SLO 6.1: Effectively use problem solving methods Students will effectively use problem solving methods.	**Foundational Studies:** 2. Critically evaluate the ideas of others.
SLO 6.2: Use electrical troubleshooting tools properly Students will use electrical troubleshooting tools properly.	No Mapping
SLO 6.3: Debugs logic and software applications Students will debug logic and software applications successfully.	No Mapping

Program Objective G: Effective communication

Outcome	Mapping
SLO 7.1: Exhibits good verbal communications Students will exhibit good verbal communications.	**Foundational Studies:** 10. Express themselves effectively, professionally, and persuasively both orally and in writing.
SLO 7.2: Possesses good written communication skills Students will possess good written communication skills.	**Foundational Studies:** 10. Express themselves effectively, professionally, and persuasively both orally and in writing.
SLO 7.3: Formality and respect in communication Students will understand the need for formality and respect in communication.	**Foundational Studies:** 10. Express themselves effectively, professionally, and persuasively both orally and in writing.

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

Outcome	Mapping
SLO 8.1: Demonstrates a desire to learn	No Mapping

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

Outcome	Mapping
SLO 9.1: Demonstrates professionalism Students will demonstrate professionalism.	No Mapping
SLO 9.2: Understands and exhibits ethics Students will understand and exhibit ethics.	No Mapping
SLO 9.3: Understands the role of professional societies Students will understand the role of professional societies.	No Mapping

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

Outcome	Mapping
SLO 10.1: Automated control system marketplace Students will understand the automated control system marketplace.	No Mapping
SLO 10.2: Understands social responsibility Students will understand social responsibility.	No Mapping
SLO 10.3: Safe design practices and operations Students will understand the responsibility of safe design practices and operations.	No Mapping

Program Objective K: Embrace quality

Students will embrace quality.

Outcome	Mapping
SLO 11.1: Understands the breadth of quality concerns Students will understand the breadth of quality concerns.	No Mapping
SLO 11.2: Understands the importance of quality Students will understand the importance of quality.	No Mapping
SLO 11.3: Understands timeliness and continuous improvement Students will understand timeliness and continuous improvement.	No Mapping

Curriculum Map

Active Curriculum Maps

Automation And Control Engineering Technology (See appendix)
Alignment Set: BS in Electronics Engineering Technology Outcome Set

Created: 12/15/2011 12:15:08 pm CST
Last Modified: 12/15/2011 12:15:08 pm CST

Electronics Engineering Technology (See appendix)
Alignment Set: BS in Electronics Engineering Technology Outcome Set
Created: 12/14/2011 1:58:49 pm CST
Last Modified: 12/16/2011 9:02:09 am CST

Communication of Outcomes

Directives to the Outcomes for the Electronics Engineering Technology Program will be included in the ISU Catalog, posted to the COT Website, and included in the ECET Department area of the ISU Website. Complete data and analysis of Outcomes will be held in the Department files. Additionally, Objectives and Outcomes, analysis, and operationalized results will be included in the Assessment portion of the Accreditation documentation.

Archive (This area is to be used for archiving pre-TaskStream assessment data and for current documents.)

Archive

File Attachments:

1. **Self-Study February 2010** (See appendix)
   Self-Study Report for the Association of Technology, Management, and Applied Engineering
2. **Self-Study Report- March 2010** (See appendix)
   Accreditation Self-Study Report (Sections I-III). Responses to ATMAE Standards

2010-2011 Assessment Cycle

Assessment Plan

Outcomes and Measures

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design

Measure: Evaluation of inclass problem solving per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 321
Target:
Implementation Plan (timeline): First Assessment: Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 1.3: Application of digital electronics

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 232
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 1.5: Apply science, math, and engineering tools

Students will apply science, math, and engineering tools.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 1.6: Apply PLCs, Robotics, and control system equipment

Students will apply PLC's, Robotics, and control system equipment.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 444
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 1.7: Engineering materials and manufacturing processes

Students will use fluid power, engineering materials and manufacturing processes.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 1.8: Management techniques and processes

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design

Students will use mathematics in design.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 2.2: Modeling for analysis

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: MET 203
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 2.3: System design

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments
Students will conduct experiments.

Measure: Evaluation of lab work in class per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 448
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 3.2: Analysis and interpretation of laboratory exercise

Measure: Evaluation of lab work in class per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 343
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 3.3: Test plans

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design

Measure: Evaluation of lab work in class per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 325
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 4.2: Software and program development

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 444
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 4.3: System design and control

Measure: Evaluation of lab work in class per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 448
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: TMGT 478
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 5.2: Understands the purpose of teams

Students will understand the purpose of teams.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 5.3: Works and communicates well in the team setting

Students will work and communicate well in the team setting.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods

Students will effectively use problem solving methods.

Measure: Evaluation of lab work in class per rubric
Indirect - Other

Details/Description: Source of Assessment: TMGT 471
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 6.2: Use electrical troubleshooting tools properly

Students will use electrical

Measure: Evaluation of lab work in class per rubric
Indirect - Other

troubleshooting tools properly.

Details/Description: Source of Assessment: ECT 343
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 6.3: Debugs logic and software applications

Students will debug logic and software applications successfully.

Measure: Evaluation of lab work in class per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 444
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: TMGT 478
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 7.3: Formality and respect in communication

Students will understand the need for formality and respect in communication.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437

Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism

Students will demonstrate professionalism.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 9.2: Understands and exhibits ethics

Students will understand and exhibit ethics.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: TMGT 478
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 9.3: Understands the role of professional societies

Students will understand the role of professional societies.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 430
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program champion

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace

Students will understand the automated control system marketplace.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 10.2: Understands social responsibility

Students will understand social responsibility.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488

Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 10.3: Safe design practices and operations

Students will understand the responsibility of safe design practices and operations.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the breadth of quality concerns

Students will understand the breadth of quality concerns.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 11.2: Understands the importance of quality

Students will understand the importance of quality.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

SLO 11.3: Understands timeliness and continuous improvement

Students will understand timeliness and continuous improvement.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Assessment Findings

Finding per Measure

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design

Measure: Evaluation of inclass problem solving per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 321
Target:
Implementation Plan (timeline): First Assessment: Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of inclass problem solving per rubric

No Findings Added

SLO 1.3: Application of digital electronics

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 232
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

SLO 1.5: Apply science, math, and engineering tools

Students will apply science, math, and engineering tools.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

SLO 1.6: Apply PLCs, Robotics, and control system equipment

Students will apply PLC's, Robotics, and control system equipment.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 444
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of inclass project per rubric

No Findings Added

SLO 1.7: Engineering materials and manufacturing processes

Students will use fluid power, engineering materials and manufacturing processes.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

SLO 1.8: Management techniques and processes

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of inclass project per rubric

No Findings Added

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design

Students will use mathematics in design.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

SLO 2.2: Modeling for analysis

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: MET 203
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)

Responsible Individual(s): ET Program Champion

Findings for Evaluation of inclass project per rubric

No Findings Added

SLO 2.3: System design

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments
Students will conduct experiments.

Measure: Evaluation of lab work in class per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 448
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of lab work in class per rubric

No Findings Added

SLO 3.2: Analysis and interpretation of laboratory exercise

Measure: Evaluation of lab work in class per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 343
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of lab work in class per rubric

No Findings Added

SLO 3.3: Test plans

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design

Measure: Evaluation of lab work in class per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 325
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of lab work in class per rubric

No Findings Added

SLO 4.2: Software and program development

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 444
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

SLO 4.3: System design and control

Measure: Evaluation of lab work in class per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 448
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of lab work in class per rubric

No Findings Added

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: TMGT 478
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of inclass project per rubric

No Findings Added

SLO 5.2: Understands the purpose of teams

Students will understand the purpose of teams.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of inclass project per rubric

No Findings Added

SLO 5.3: Works and communicates well in the team setting

Students will work and communicate well in the team setting.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of inclass project per rubric

No Findings Added

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods

Students will effectively use problem solving methods.

Measure: Evaluation of lab work in class per rubric
Indirect - Other

Details/Description: Source of Assessment: TMGT 471

Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of lab work in class per rubric

No Findings Added

SLO 6.2: Use electrical troubleshooting tools properly

Students will use electrical troubleshooting tools properly.

Measure: Evaluation of lab work in class per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 343
Target:
Implementation Plan (timeline): First Assessment Fall 2010 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of lab work in class per rubric

No Findings Added

SLO 6.3: Debugs logic and software applications

Students will debug logic and software applications successfully.

Measure: Evaluation of lab work in class per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 444
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of lab work in class per rubric

No Findings Added

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: TMGT 478
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of inclass project per rubric

No Findings Added

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of inclass project per rubric

No Findings Added

SLO 7.3: Formality and respect in communication

Students will understand the need for formality and respect in communication.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of inclass project per rubric

No Findings Added

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism

Students will demonstrate professionalism.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 437
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)

Responsible Individual(s): ET Program Champion

Findings for Evaluation of inclass project per rubric

No Findings Added

SLO 9.2: Understands and exhibits ethics

Students will understand and exhibit ethics.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: TMGT 478
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of inclass project per rubric

No Findings Added

SLO 9.3: Understands the role of professional societies

Students will understand the role of professional societies.

Measure: Evaluation of inclass project per rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 430
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program champion

Findings for Evaluation of inclass project per rubric

No Findings Added

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace

Students will understand the automated control system marketplace.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

SLO 10.2: Understands social responsibility

Students will understand social responsibility.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

SLO 10.3: Safe design practices and operations

Students will understand the responsibility of safe design practices and operations.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the breadth of quality concerns

Students will understand the breadth of quality concerns.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

SLO 11.2: Understands the importance of quality

Students will understand the importance of quality.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488
Target:
Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)
Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

SLO 11.3: Understands timeliness and continuous improvement

Students will understand timeliness and continuous improvement.

Measure: Evaluation of performance per semester project rubric
Indirect - Other

Details/Description: Source of Assessment: ECT 488

Target:

Implementation Plan (timeline): First Assessment Spring 2011 (3 year cycle)

Responsible Individual(s): ET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

Overall Recommendations

No text specified

Overall Reflection

No text specified

2011-2012 Assessment Cycle

Assessment Plan

Outcomes and Measures

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design

Measure: Evaluation of in-class problem solving per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 321
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 1.3: Application of digital electronics

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 232
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 1.5: Apply science, math, and engineering tools

Students will apply science, math, and engineering tools.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 1.7: Engineering materials and manufacturing processes

Students will use fluid power, engineering materials and manufacturing processes.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 1.8: Management techniques and processes

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design

Students will use mathematics in design.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 2.3: System design

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments

Students will conduct experiments.

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 448
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 3.2: Analysis and interpretation of laboratory exercise

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 343
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 3.3: Test plans

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.3: System design and control

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 448
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Program Objective F: Effective problem solving

SLO 6.2: Use electrical troubleshooting tools properly

Students will use electrical troubleshooting tools properly.

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 343
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.2: Understands and exhibits ethics

Students will understand and exhibit ethics.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406

Target:

Implementation Plan (timeline): S2012, S2015, (3 year cycle)

Responsible Individual(s): EET Program Champion

SLO 9.3: Understands the role of professional societies

Students will understand the role of professional societies.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 430

Target:

Implementation Plan (timeline): S2012, S2015, (3 year cycle)

Responsible Individual(s): EET Program Champion

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace

Students will understand the automated control system marketplace.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406

Target:

Implementation Plan (timeline): S2012, S2015, (3 year cycle)

Responsible Individual(s): EET Program Champion

SLO 10.2: Understands social responsibility

Students will understand social responsibility.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406

Target:

Implementation Plan (timeline): S2012, S2015, (3 year cycle)

Responsible Individual(s): EET Program Champion

SLO 10.3: Safe design practices and operations

Students will understand the responsibility of safe design practices and operations.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406

Target:

Implementation Plan (timeline): S2012, S2015, (3 year cycle)

Responsible Individual(s): EET Program Champion

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the breadth of quality concerns

Students will understand

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406

the breadth of quality concerns.

Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 11.2: Understands the importance of quality
Students will understand the importance of quality.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 11.3: Understands timeliness and continuous improvement
Students will understand timeliness and continuous improvement.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Assessment Findings

Finding per Measure

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design

Measure: Evaluation of in-class problem solving per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 321
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class problem solving per rubric

Summary of Findings: Not completed this cycle.
Results: Target Achievement: Not Met
Recommendations :
Reflections/Notes :

SLO 1.3: Application of digital electronics

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 232
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

Summary of Findings: Not completed this cycle.
Results: Target Achievement: Not Met
Recommendations :
Reflections/Notes :

SLO 1.5: Apply science, math, and engineering tools

Students will apply science, math, and engineering tools.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

Summary of Findings: A lab assignment in ECT325 was evaluated in terms of this outcome. The average score for the exercise was 95%.
Results: Target Achievement: Met
Recommendations : Revise rubric.
Reflections/Notes :

SLO 1.7: Engineering materials and manufacturing processes

Students will use fluid power, engineering materials and manufacturing processes.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

Summary of Findings: Lab work in ECT281 was evaluated in terms of this outcome. The average score on the selected labs (4 x 20 students) was 90%.
Results: Target Achievement: Met
Recommendations : Revise rubric.

Reflections/Notes :

SLO 1.8: Management techniques and processes

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project per rubric

Summary of Findings: The semester projects were evaluated. The average score was 90%.
Results: Target Achievement: Met
Recommendations : None
Reflections/Notes :

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design

Students will use mathematics in design.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

Summary of Findings: A design lab was evaluated in ECT343. The average score was 85%.
Results: Target Achievement: Met
Recommendations : Revise rubric.
Reflections/Notes :

SLO 2.3: System design

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

Summary of Findings: No assessment this cycle.
Results: Target Achievement: Not Met
Recommendations : Revise ribric
Reflections/Notes :

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments

Students will conduct experiments.

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 448
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of lab work in class per rubric

Summary of Findings: Lab work in ECT325 was evaluated during a classroom visit. The students were asked to identify the scope and purpose of the lab work. The results indicated that 15% of the students did not understand the lab assignment.
Results: Target Achievement: Not Met
Recommendations : Revise rubric.
Reflections/Notes :

SLO 3.2: Analysis and interpretation of laboratory exercise

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 343
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of lab work in class per rubric

Summary of Findings: The lab scores indicated 95% scores.
Results: Target Achievement: Met
Recommendations : None.
Reflections/Notes :

SLO 3.3: Test plans

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406

Target:

Implementation Plan (timeline): S2012, S2015, (3 year cycle)

Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

Summary of Findings: ECT381 was used to evaluate the student's test plan for PLC logic. The results indicated that 30% of the students had no solid test plan.

Results: Target Achievement: Not Met

Recommendations : Reinforce the concept in ECT381.

Reflections/Notes :

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.3: System design and control

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 448

Target:

Implementation Plan (timeline): S2012, S2015, (3 year cycle)

Responsible Individual(s): EET Program Champion

Findings for Evaluation of lab work in class per rubric

Summary of Findings: No assessment this cycle.

Results: Target Achievement: Not Met

Recommendations :

Reflections/Notes :

Program Objective F: Effective problem solving

SLO 6.2: Use electrical troubleshooting tools properly

Students will use electrical troubleshooting tools properly.

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 343

Target:

Implementation Plan (timeline): S2012, S2015, (3 year cycle)

Responsible Individual(s): EET Program Champion

Findings for Evaluation of lab work in class per rubric

Summary of Findings: Lab scores for the course showed an average score of 85%.

Results: Target Achievement: Met
Recommendations : None.
Reflections/Notes :

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

Summary of Findings: No assessment.
Results: Target Achievement: Not Met
Recommendations :
Reflections/Notes :

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.2: Understands and exhibits ethics

Students will understand and exhibit ethics.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project per rubric

Summary of Findings: No assessment.
Results: Target Achievement: Not Met
Recommendations :
Reflections/Notes :

SLO 9.3: Understands the role of professional societies

Students will understand

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

the role of professional societies.

Details/Description: Data collected in ECT 430
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project per rubric

Summary of Findings: The course grades in ECT430 were about 85%.
Results: Target Achievement: Met
Recommendations : None.
Reflections/Notes :

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace

Students will understand the automated control system marketplace.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

Summary of Findings: ECT281 was used to evaluate this outcome. The students when surveyed had a good understanding of how PLCs and robots are applied in industry.
Results: Target Achievement: Met
Recommendations : None.
Reflections/Notes :

SLO 10.2: Understands social responsibility

Students will understand social responsibility.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

Summary of Findings: No assessment.
Results: Target Achievement: Not Met
Recommendations :
Reflections/Notes :

SLO 10.3: Safe design practices and operations

Students will understand the responsibility of safe design practices and operations.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

Summary of Findings: No assessment.
Results: Target Achievement: Not Met
Recommendations :
Reflections/Notes :

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the breadth of quality concerns

Students will understand the breadth of quality concerns.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

Summary of Findings: No assessment.
Results: Target Achievement: Not Met
Recommendations :
Reflections/Notes :

SLO 11.2: Understands the importance of quality

Students will understand the importance of quality.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

Summary of Findings: No assessment.
Results: Target Achievement: Not Met
Recommendations :
Reflections/Notes :

SLO 11.3: Understands timeliness and continuous improvement

Students will understand timeliness and continuous improvement.

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): S2012, S2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

Summary of Findings: No assessment.
Results: Target Achievement: Not Met
Recommendations :
Reflections/Notes :

Overall Recommendations

No text specified

Overall Reflection

No text specified

Action Plan

Actions

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design

Action: Circuit analysis

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 1.2: Application of circuits, design, and application

Action: Application of ckts

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 1.3: Application of digital electronics

Action: Digital

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 1.4: Application of computer programming and software

Action: Programming

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 1.5: Apply science, math, and engineering tools

Students will apply science, math, and engineering tools.

Action: Science & Math

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: No changes

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 1.6: Apply PLCs, Robotics, and control system equipment

Students will apply PLC's, Robotics, and control system equipment.

Action: PLCs and robotics

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 1.7: Engineering materials and manufacturing processes

Students will use fluid power, engineering materials and manufacturing processes.

Action: Engineering materials

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: No change

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 1.8: Management techniques and processes

Action: Management

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: No changes

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design

Students will use mathematics in design.

Action: Math in design

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: No changes

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 2.2: Modeling for analysis

Action: Modeling

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 2.3: System design

Action: System design

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments

Students will conduct experiments.

Action: Experiments

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: No changes

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 3.2: Analysis and interpretation of laboratory exercise

Action: Lab exercises

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: No changes

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 3.3: Test plans

Action: Test plans

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: No changes

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design

Action: Circuit design

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 4.2: Software and program development

Action: Software development

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 4.3: System design and control

Action: System design

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member

Action: Teaming

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 5.2: Understands the purpose of teams

Students will understand the purpose of teams.

Action: Purpose of teams

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Action: Understands teams

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 5.3: Works and communicates well in the team setting

Students will work and communicate well in the team setting.

Action: Communication

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods

Students will effectively use problem solving methods.

Action: Problem solving

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 6.2: Use electrical troubleshooting tools properly

Students will use electrical troubleshooting tools properly.

Action: Tools

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: No change

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 6.3: Debugs logic and software applications

Students will debug logic and software applications successfully.

Action: Debug

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

Action: Verbal

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Action: Written skills

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 7.3: Formality and respect in communication

Students will understand the need for formality and respect in communication.

Action: Formality

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn

Action: Lifelong learning

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism

Students will demonstrate professionalism.

Action: Professionalism

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 9.2: Understands and exhibits ethics

Students will understand and exhibit ethics.

Action: Ethics

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 9.3: Understands the role of professional societies

Students will understand the role of professional societies.

Action: Professional Societies

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: No change

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace

Students will understand the automated control system marketplace.

Action: Control systems

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: No change

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 10.2: Understands social responsibility

Students will understand social responsibility.

Action: Social responsability

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 10.3: Safe design practices and operations

Students will understand the responsibility of safe design practices and operations.

Action: Safe design

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the breadth of quality concerns

Students will understand the breadth of quality concerns.

Action: Quality

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 11.2: Understands the importance of quality

Students will understand the importance of quality.

Action: Importance of quality

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

SLO 11.3: Understands timeliness and continuous improvement

Students will understand timeliness and continuous improvement.

Action: Continuous quality

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status Report

Action Statuses

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design

Action: Circuit analysis

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Circuit analysis

No Status Added

SLO 1.2: Application of circuits, design, and application

Action: Application of ckts

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Application of ckts

No Status Added

SLO 1.3: Application of digital electronics

Action: Digital

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Digital

No Status Added

SLO 1.4: Application of computer programming and software

Action: Programming

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Programming

No Status Added

SLO 1.5: Apply science, math, and engineering tools

Students will apply science, math, and engineering tools.

Action: Science & Math

Action Details: No changes

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Science & Math

No Status Added

SLO 1.6: Apply PLCs, Robotics, and control system equipment

Students will apply PLC's, Robotics, and control system equipment.

Action: PLCs and robotics

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for PLCs and robotics

No Status Added

SLO 1.7: Engineering materials and manufacturing processes

Students will use fluid power, engineering materials and manufacturing processes.

Action: Engineering materials

Action Details: No change

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Engineering materials

No Status Added

SLO 1.8: Management techniques and processes

Action: Management

Action Details: No changes

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Management

No Status Added

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design

Students will use mathematics in design.

Action: Math in design

Action Details: No changes

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Math in design

No Status Added

SLO 2.2: Modeling for analysis

Action: Modeling

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Modeling

No Status Added

SLO 2.3: System design

Action: System design

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for System design

No Status Added

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments

Students will conduct experiments.

Action: Experiments

Action Details: No changes

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Experiments

No Status Added

SLO 3.2: Analysis and interpretation of

Action: Lab exercises

laboratory exercise

Action Details: No changes

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Lab exercises

No Status Added

SLO 3.3: Test plans

Action: Test plans

Action Details: No changes

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Test plans

No Status Added

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design

Action: Circuit design

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Circuit design

No Status Added

SLO 4.2: Software and program development

Action: Software development

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Software development

No Status Added

SLO 4.3: System design and control

Action: System design

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for System design

No Status Added

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member

Action: Teaming

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Teaming

No Status Added

SLO 5.2: Understands the purpose of teams

Students will understand the purpose of teams.

Action: Purpose of teams

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Purpose of teams

No Status Added

Action: Understands teams

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Understands teams

No Status Added

SLO 5.3: Works and communicates well in the team setting

Students will work and communicate well in the team setting.

Action: Communication

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Communication

No Status Added

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods

Students will effectively use problem solving methods.

Action: Problem solving

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Problem solving

No Status Added

SLO 6.2: Use electrical troubleshooting tools properly

Students will use electrical troubleshooting tools properly.

Action: Tools

Action Details: No change

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Tools

Current Status: In Progress

Resource Allocation(s) Status:

Next Steps/Additional Information:

SLO 6.3: Debugs logic and software applications

Students will debug logic

Action: Debug

Action Details: Major revision required.

and software applications successfully.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Debug

Current Status: In Progress

Resource Allocation(s) Status:

Next Steps/Additional Information:

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

Action: Verbal

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Verbal

Current Status: In Progress

Resource Allocation(s) Status:

Next Steps/Additional Information:

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Action: Written skills

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Written skills

Current Status: In Progress

Resource Allocation(s) Status:

Next Steps/Additional Information:

SLO 7.3: Formality and respect in communication

Students will understand the need for formality and respect in communication.

Action: Formality

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Formality

Current Status: In Progress

Resource Allocation(s) Status:

Next Steps/Additional Information:

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn

Action: Lifelong learning

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Lifelong learning

Current Status: Not started

Resource Allocation(s) Status:

Next Steps/Additional Information:

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism

Students will demonstrate professionalism.

Action: Professionalism

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Professionalism

Current Status: In Progress

Resource Allocation(s) Status:

Next Steps/Additional Information:

SLO 9.2: Understands and exhibits ethics

Students will understand and exhibit ethics.

Action: Ethics

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Ethics

Current Status: In Progress

Resource Allocation(s) Status:

Next Steps/Additional Information:

SLO 9.3: Understands the role of professional societies

Students will understand the role of professional societies.

Action: Professional Societies

Action Details: No change

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Professional Societies

Current Status: Completed

Resource Allocation(s) Status:

Next Steps/Additional Information:

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace

Students will understand the automated control system marketplace.

Action: Control systems

Action Details: No change

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Control systems

Current Status: Completed

Resource Allocation(s) Status:

Next Steps/Additional Information:

SLO 10.2: Understands social responsibility

Students will understand social responsibility.

Action: Social responsability

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Social responsability

Current Status: Not started

Resource Allocation(s) Status:

Next Steps/Additional Information:

SLO 10.3: Safe design practices and operations

Students will understand the responsibility of safe design practices and operations.

Action: Safe design

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Safe design

Current Status: In Progress

Resource Allocation(s) Status:

Next Steps/Additional Information:

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the breadth of quality concerns

Students will understand the breadth of quality concerns.

Action: Quality

Action Details: Major revision required.

Implementation Plan (timeline): 12-13 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Quality

Current Status: In Progress

Resource Allocation(s) Status:

Next Steps/Additional Information:

SLO 11.2: Understands the importance of quality

Students will understand the importance of quality.

Action: Importance of quality

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Importance of quality

Current Status: Not started

Resource Allocation(s) Status:

Next Steps/Additional Information:

SLO 11.3: Understands timeliness and continuous improvement

Students will understand timeliness and continuous improvement.

Action: Continuous quality

Action Details: Major revision required.

Implementation Plan (timeline): 13-14 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Continuous quality

Current Status: Not started

Resource Allocation(s) Status:

Next Steps/Additional Information:

Status Summary

No text specified

Summary of Next Steps

No text specified

2012-2013 Assessment Cycle

Assessment Plan

Outcomes and Measures

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.2: Application of circuits, design, and application

Measure: Evaluation of selected in-class lab work
Direct - Student Artifact

Details/Description: Data collected in ECT 448
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

SLO 1.4: Application of computer programming and software

Measure: Evaluation of selcted in-class problem lab
Direct - Student Artifact

Details/Description: Data collected in ECT 281
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

SLO 1.6: Apply PLCs, Robotics, and control system equipment

Students will apply PLC's, Robotics, and control system equipment.

Measure: Evaluation of in-class selected project
Direct - Student Artifact

Details/Description: Data collected in ECT 444
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.2: Modeling for analysis

Measure: Evaluation of in-class seledcted project
Direct - Student Artifact

Details/Description: Data collected in ECT 421
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design

Measure: Evaluation of selected lab work
Direct - Student Artifact

Details/Description: Data collected in ECT 325
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

SLO 4.2: Software and program development

Measure: Evaluation of performance selected lab
Direct - Student Artifact

Details/Description: Data collected in ECT 444
Target: 86%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

SLO 5.2: Understands the purpose of teams

Students will understand the purpose of teams.

Measure: Evaluation of team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

SLO 5.3: Works and communicates well in the team setting

Students will work and communicate well in the team setting.

Measure: Evaluation of team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods

Students will effectively use problem solving methods.

Measure: Evaluation of selected lab work
Direct - Student Artifact

Details/Description: Data collected in ECT 343
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

SLO 6.3: Debugs logic and software applications

Students will debug logic and software applications successfully.

Measure: Evaluation of selected lab work
Direct - Student Artifact

Details/Description: Data collected in ECT 444
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

SLO 7.3: Formality and respect in communication

Students will understand the need for formality and respect in communication.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism

Students will demonstrate professionalism.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

Assessment Findings

Finding per Measure

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.2: Application of circuits, design, and application

Measure: Evaluation of selected in-class lab work
Direct - Student Artifact

Details/Description: Data collected in ECT 448
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Findings for Evaluation of selected in-class lab work

Summary of Findings: The lab involved the design and evaluation of an SCR circuit for control of motor speed. Overall students were successful.
Results: Target Achievement: Met
Recommendations :
Reflections/Notes :

SLO 1.4: Application of computer programming and software

Measure: Evaluation of selcted in-class problem lab
Direct - Student Artifact

Details/Description: Data collected in ECT 281
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

Findings for Evaluation of selcted in-class problem lab

Summary of Findings: The PLC programming lab involved the design of a conveyor material handling simulation. The students were successful with some assistance - 200 level course.
Results: Target Achievement: Met
Recommendations :

Reflections/Notes :

SLO 1.6: Apply PLCs, Robotics, and control system equipment

Students will apply PLC's, Robotics, and control system equipment.

Measure: Evaluation of in-class selected project
Direct - Student Artifact

Details/Description: Data collected in ECT 444
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class selected project

Summary of Findings: Evaluated were two PLC programming labs. Work quality was good.
Results: Target Achievement: Met
Recommendations :
Reflections/Notes :

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.2: Modeling for analysis

Measure: Evaluation of in-class seledcted project
Direct - Student Artifact

Details/Description: Data collected in ECT 421
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class seledcted project

Summary of Findings: A proportional control (PID) was modeled using an op-amp circuit.
Results: Target Achievement: Not Met
Recommendations : Not a good project for assessment.
Reflections/Notes :

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design

Measure: Evaluation of selected lab work
Direct - Student Artifact

Details/Description: Data collected in ECT 325
Target: 85%
Implementation Plan (timeline): Annual

Responsible Individual(s): EET Program Champion

Findings for Evaluation of selected lab work

Summary of Findings: A follower op-amp circuit was design and evaluated. Good student results.

Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

SLO 4.2: Software and program development

Measure: Evaluation of performance selected lab
Direct - Student Artifact

Details/Description: Data collected in ECT 444

Target: 86%

Implementation Plan (timeline): Annual

Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance selected lab

Summary of Findings: Four PLC programs were designed and debugged.

Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437

Target: 85%

Implementation Plan (timeline): Fall

Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class team project

Summary of Findings: Team project evaluation of perfromance by team members and the instructor were reviewed.

Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

SLO 5.2: Understands the purpose of teams

Students will understand the purpose of teams.

Measure: Evaluation of team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

Findings for Evaluation of team project

Summary of Findings: Team project overall grades were evaluated.
Results: Target Achievement: Met
Recommendations :
Reflections/Notes :

SLO 5.3: Works and communicates well in the team setting

Students will work and communicate well in the team setting.

Measure: Evaluation of team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

Findings for Evaluation of team project

Summary of Findings: One item in the team member evaluation was communication skills.
Results: Target Achievement: Met
Recommendations :
Reflections/Notes :

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods

Students will effectively use problem solving methods.

Measure: Evaluation of selected lab work
Direct - Student Artifact

Details/Description: Data collected in ECT 343
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Findings for Evaluation of selected lab work

Summary of Findings: Midterm grades were evaluated, the exam was 100% lab and design.
Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

SLO 6.3: Debugs logic and software applications

Students will debug logic and software applications successfully.

Measure: Evaluation of selected lab work
Direct - Student Artifact

Details/Description: Data collected in ECT 444

Target: 85%

Implementation Plan (timeline): Annual

Responsible Individual(s): EET Program Champion

Findings for Evaluation of selected lab work

Summary of Findings: Instructor observed selected students as the debugged their PLC programs. 90%

Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437

Target: 85%

Implementation Plan (timeline): Fall

Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class team project

Summary of Findings: Team project verbal skills were evaluated by team members.

Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437

Target: 85%

Implementation Plan (timeline): Annual

Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class team project

Summary of Findings: Written deliverables by individual team members were evaluated for overall quality.

Results: Target Achievement: Not Met

Recommendations : Need work.

Reflections/Notes :

SLO 7.3: Formality and respect in communication

Students will understand the need for formality and respect in communication.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437

Target: 85%

Implementation Plan (timeline): Fall

Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class team project

Summary of Findings: N/A this cycle.

Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism

Students will demonstrate professionalism.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: Data collected in ECT 437

Target: 85%

Implementation Plan (timeline): Fall

Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class team project

Summary of Findings: The instructor evaluated the performance of students within the project team. 88%

Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

Overall Recommendations

Two issues were noted. The analysis outcome was not well served by the project selected in ECT421. Also the written quality of documentation in ECT437 was well below 85%.

Overall Reflection

The writing quality issue is a big one.

Action Plan

Actions

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design	*No actions specified*
SLO 1.2: Application of circuits, design, and application	*No actions specified*
SLO 1.3: Application of digital electronics	*No actions specified*
SLO 1.4: Application of computer programming and software	*No actions specified*
SLO 1.5: Apply science, math, and engineering tools Students will apply science, math, and engineering tools.	*No actions specified*
SLO 1.6: Apply PLCs, Robotics, and control system equipment Students will apply PLC's, Robotics, and control system equipment.	*No actions specified*
SLO 1.7: Engineering materials and manufacturing processes Students will use fluid power, engineering materials and manufacturing processes.	*No actions specified*
SLO 1.8: Management techniques and processes	*No actions specified*

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design

Students will use mathematics in design.

No actions specified

SLO 2.2: Modeling for analysis

Action: Modeling

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: Major revision required in defining activity that embodies modeling. The modeling issue remains on hold until the ECT421 course material is revised during the upcoming cycle. Then the assessment can be redefined for this item for the 15-16 cycle.

Implementation Plan (timeline): 15-16 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority: Medium

SLO 2.3: System design

No actions specified

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments

Students will conduct experiments.

No actions specified

SLO 3.2: Analysis and interpretation of laboratory exercise

No actions specified

SLO 3.3: Test plans

No actions specified

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design

No actions specified

SLO 4.2: Software and program development

No actions specified

SLO 4.3: System design and control

No actions specified

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member	*No actions specified*
SLO 5.2: Understands the purpose of teams Students will understand the purpose of teams.	*No actions specified*
SLO 5.3: Works and communicates well in the team setting Students will work and communicate well in the team setting.	*No actions specified*

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods Students will effectively use problem solving methods.	*No actions specified*
SLO 6.2: Use electrical troubleshooting tools properly Students will use electrical troubleshooting tools properly.	*No actions specified*
SLO 6.3: Debugs logic and software applications Students will debug logic and software applications successfully.	*No actions specified*

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications Students will exhibit good verbal communications.	*No actions specified*
SLO 7.2: Possesses good written communication skills Students will possess good written communication skills.	**Action:** Written skills

This Action is associated with the following Findings
No supporting Findings have been linked to this Action.

Action Details: Overall writing skills need work. Putting more grade points on written quality will force more attention to the subject. The writing quality issue remains with some improvement observed.Work will continue.

Implementation Plan (timeline): 15-16 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority: Medium

SLO 7.3: Formality and respect in communication Students will understand the need for formality and respect in communication.	*No actions specified*

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn	*No actions specified*

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism Students will demonstrate professionalism.	*No actions specified*
SLO 9.2: Understands and exhibits ethics Students will understand and exhibit ethics.	*No actions specified*
SLO 9.3: Understands the role of professional societies Students will understand the role of professional societies.	*No actions specified*

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace Students will understand the automated control system marketplace.	*No actions specified*
SLO 10.2: Understands social responsibility Students will understand social responsibility.	*No actions specified*
SLO 10.3: Safe design practices and operations Students will understand the responsibility of safe	*No actions specified*

design practices and operations.

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the breadth of quality concerns Students will understand the breadth of quality concerns.	*No actions specified*
SLO 11.2: Understands the importance of quality Students will understand the importance of quality.	*No actions specified*
SLO 11.3: Understands timeliness and continuous improvement Students will understand timeliness and continuous improvement.	*No actions specified*

Status Report

Action Statuses

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design	*No actions specified*
SLO 1.2: Application of circuits, design, and application	*No actions specified*
SLO 1.3: Application of digital electronics	*No actions specified*
SLO 1.4: Application of computer programming and software	*No actions specified*
SLO 1.5: Apply science, math, and engineering tools Students will apply science, math, and engineering tools.	*No actions specified*
SLO 1.6: Apply PLCs,	*No actions specified*

Robotics, and control system equipment Students will apply PLC's, Robotics, and control system equipment.	
SLO 1.7: Engineering materials and manufacturing processes Students will use fluid power, engineering materials and manufacturing processes.	*No actions specified*
SLO 1.8: Management techniques and processes	*No actions specified*

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design Students will use mathematics in design.	*No actions specified*
SLO 2.2: Modeling for analysis	**Action:** Modeling **Action Details:** Major revision required in defining activity that embodies modeling. The modeling issue remains on hold until the ECT421 course material is revised during the upcoming cycle. Then the assessment can be redefined for this item for the 15-16 cycle. **Implementation Plan (timeline):** 15-16 cycle **Key/Responsible Personnel:** **Measures:** **Resource Allocations:** **Priority:** Medium **Status** for Modeling **Current Status:** In Progress **Resource Allocation(s) Status:** Remains an issue, target 2015/16 cycle. **Next Steps/Additional Information:** Work is being done in ECT421 which will include some mathematical modeling in the 2015 spring section.
SLO 2.3: System design	*No actions specified*

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments Students will conduct experiments.	*No actions specified*
SLO 3.2: Analysis and interpretation of laboratory exercise	*No actions specified*
SLO 3.3: Test plans	*No actions specified*

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design	*No actions specified*
SLO 4.2: Software and program development	*No actions specified*
SLO 4.3: System design and control	*No actions specified*

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member	*No actions specified*
SLO 5.2: Understands the purpose of teams Students will understand the purpose of teams.	*No actions specified*
SLO 5.3: Works and communicates well in the team setting Students will work and communicate well in the team setting.	*No actions specified*

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods Students will effectively use problem solving methods.	*No actions specified*
SLO 6.2: Use electrical troubleshooting tools properly Students will use electrical troubleshooting tools properly.	*No actions specified*
SLO 6.3: Debugs logic and software applications	*No actions specified*

Students will debug logic and software applications successfully.

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

No actions specified

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Action: Written skills

Action Details: Overall writing skills need work. Putting more grade points on written quality will force more attention to the subject. The writing quality issue remains with some improvement observed.Work will continue.

Implementation Plan (timeline): 15-16 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority: Medium

Status for Written skills

Current Status: In Progress

Resource Allocation(s) Status: The number of points attributed to grammar and writing in the team project reports has been increased.

Next Steps/Additional Information: 2015-16 cycle hope to have resolved

SLO 7.3: Formality and respect in communication

Students will understand the need for formality and respect in communication.

No actions specified

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn

No actions specified

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism

Students will demonstrate

No actions specified

professionalism.

SLO 9.2: Understands and exhibits ethics Students will understand and exhibit ethics.	*No actions specified*
SLO 9.3: Understands the role of professional societies Students will understand the role of professional societies.	*No actions specified*

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace Students will understand the automated control system marketplace.	*No actions specified*
SLO 10.2: Understands social responsibility Students will understand social responsibility.	*No actions specified*
SLO 10.3: Safe design practices and operations Students will understand the responsibility of safe design practices and operations.	*No actions specified*

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the breadth of quality concerns Students will understand the breadth of quality concerns.	*No actions specified*
SLO 11.2: Understands the importance of quality Students will understand the importance of quality.	*No actions specified*
SLO 11.3: Understands timeliness and continuous improvement Students will understand timeliness and continuous improvement.	*No actions specified*

Status Summary

Work is in progress on the two issues; writing quality and modeling. Working to 2015-16 resolution. Ditto for the 12-13 cycle.

Summary of Next Steps

Looking to 2013-14 results on writing in ECT437. Modeling on hold for ECT421 Sp15... As stated.

2013-2014 Assessment Cycle

Assessment Plan

Outcomes and Measures

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design

No measures specified

SLO 1.2: Application of circuits, design, and application

Measure: Evaluation of selected in-class work
Direct - Student Artifact

Details/Description: Data collected in ECT 448
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

SLO 1.3: Application of digital electronics

No measures specified

SLO 1.4: Application of computer programming and software

Measure: Evaluation of selected in-class lab
Direct - Student Artifact

Details/Description: Data collected in ECT 281
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

SLO 1.5: Apply science, math, and engineering tools

Students will apply science, math, and engineering tools.

No measures specified

SLO 1.6: Apply PLCs, Robotics, and control system equipment

Students will apply PLC's, Robotics, and control system equipment.

Measure: Evaluation of in-class project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 444
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

SLO 1.7: Engineering materials and manufacturing processes Students will use fluid power, engineering materials and manufacturing processes.	*No measures specified*
SLO 1.8: Management techniques and processes	*No measures specified*

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design Students will use mathematics in design.	*No measures specified*
SLO 2.2: Modeling for analysis	**Measure:** Evaluation of inclass selected project Direct - Student Artifact **Details/Description:** Source of Assessment: ECT421 **Target:** 85% **Implementation Plan (timeline):** Annual **Responsible Individual(s):** EET Program Champion
SLO 2.3: System design	*No measures specified*

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments Students will conduct experiments.	*No measures specified*
SLO 3.2: Analysis and interpretation of laboratory exercise	*No measures specified*
SLO 3.3: Test plans	*No measures specified*

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design	**Measure:** Evaluation of lab work Direct - Student Artifact **Details/Description:** Source of Assessment: ECT 325

Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

SLO 4.2: Software and program development

Measure: Evaluation of performance selected lab
Indirect - Other

Details/Description: Source of Assessment: ECT 444
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

SLO 4.3: System design and control

No measures specified

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member

Measure: Evaluation of inclass team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

SLO 5.2: Understands the purpose of teams

Students will understand the purpose of teams.

Measure: Evaluation of team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

SLO 5.3: Works and communicates well in the team setting

Students will work and communicate well in the team setting.

Measure: Evaluation of team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods

Measure: Evaluation of selected lab work
Direct - Student Artifact

Students will effectively use problem solving methods.

Details/Description: Source of Assessment: ECT343
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

SLO 6.2: Use electrical troubleshooting tools properly

Students will use electrical troubleshooting tools properly.

No measures specified

SLO 6.3: Debugs logic and software applications

Students will debug logic and software applications successfully.

Measure: Evaluation of selected lab work
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 444
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

Measure: Evaluation of inclass team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Measure: Evaluation of inclass team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

SLO 7.3: Formality and respect in communication

Students will understand the need for formality and respect in communication.

Measure: Evaluation of inclass team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn

No measures specified

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism

Students will demonstrate professionalism.

Measure: Evaluation of inclass team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437

Target: 85%

Implementation Plan (timeline): Fall

Responsible Individual(s): EET Program Champion

SLO 9.2: Understands and exhibits ethics

Students will understand and exhibit ethics.

No measures specified

SLO 9.3: Understands the role of professional societies

Students will understand the role of professional societies.

No measures specified

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace

Students will understand the automated control system marketplace.

No measures specified

SLO 10.2: Understands social responsibility

Students will understand social responsibility.

No measures specified

SLO 10.3: Safe design practices and operations

Students will understand the responsibility of safe design practices and operations.

No measures specified

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the

No measures specified

breadth of quality concerns Students will understand the breadth of quality concerns.	
SLO 11.2: Understands the importance of quality Students will understand the importance of quality.	*No measures specified*
SLO 11.3: Understands timeliness and continuous improvement Students will understand timeliness and continuous improvement.	*No measures specified*

Assessment Findings

Finding per Measure

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design	*No measures specified*
SLO 1.2: Application of circuits, design, and application	**Measure:** Evaluation of selected in-class work Direct - Student Artifact

Details/Description: Data collected in ECT 448
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Findings for Evaluation of selected in-class work

Summary of Findings: Good results, 90%
Results: Target Achievement: Met
Recommendations :
Reflections/Notes :

SLO 1.3: Application of digital electronics	*No measures specified*
SLO 1.4: Application of computer programming and software	**Measure:** Evaluation of selected in-class lab Direct - Student Artifact

Details/Description: Data collected in ECT 281
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

Findings for Evaluation of selected in-class lab

Summary of Findings: 95%
Results: Target Achievement: Met
Recommendations :
Reflections/Notes :

SLO 1.5: Apply science, math, and engineering tools

Students will apply science, math, and engineering tools.

No measures specified

SLO 1.6: Apply PLCs, Robotics, and control system equipment

Students will apply PLC's, Robotics, and control system equipment.

Measure: Evaluation of in-class project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 444
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project

Summary of Findings: Good work. 90%
Results: Target Achievement: Met
Recommendations :
Reflections/Notes :

SLO 1.7: Engineering materials and manufacturing processes

Students will use fluid power, engineering materials and manufacturing processes.

No measures specified

SLO 1.8: Management techniques and processes

No measures specified

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design

Students will use mathematics in design.

No measures specified

SLO 2.2: Modeling for analysis

Measure: Evaluation of inclass selected project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT421

Target: 85%

Implementation Plan (timeline): Annual

Responsible Individual(s): EET Program Champion

Findings for Evaluation of inclass selected project

Summary of Findings: N/A. On hold for resolution of new assessment plan for this item in 15-16 cycle.

Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

SLO 2.3: System design

No measures specified

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments

Students will conduct experiments.

No measures specified

SLO 3.2: Analysis and interpretation of laboratory exercise

No measures specified

SLO 3.3: Test plans

No measures specified

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design

Measure: Evaluation of lab work
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 325

Target: 85%

Implementation Plan (timeline): Annual

Responsible Individual(s): EET Program Champion

Findings for Evaluation of lab work

Summary of Findings: Good work on circuit designs of instrumentation op-amp circuit
Results: Target Achievement: Met
Recommendations : 85%
Reflections/Notes :

SLO 4.2: Software and program development

Measure: Evaluation of performance selected lab
Indirect - Other

Details/Description: Source of Assessment: ECT 444
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance selected lab

Summary of Findings: Good programming. 90%
Results: Target Achievement: Met
Recommendations :
Reflections/Notes :

SLO 4.3: System design and control

No measures specified

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member

Measure: Evaluation of inclass team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Findings for Evaluation of inclass team project

Summary of Findings: 95%
Results: Target Achievement: Met
Recommendations :
Reflections/Notes :

SLO 5.2: Understands the purpose of teams

Students will understand the purpose of teams.

Measure: Evaluation of team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Findings for Evaluation of team project

Summary of Findings: Good team work observed in the projects.
Results: Target Achievement: Met
Recommendations : 95%
Reflections/Notes :

SLO 5.3: Works and communicates well in the team setting

Students will work and communicate well in the team setting.

Measure: Evaluation of team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET Program Champion

Findings for Evaluation of team project

Summary of Findings: Good team work. 98%
Results: Target Achievement: Met
Recommendations :
Reflections/Notes :

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods

Students will effectively use problem solving methods.

Measure: Evaluation of selected lab work
Direct - Student Artifact

Details/Description: Source of Assessment: ECT343
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET Program Champion

Findings for Evaluation of selected lab work

Summary of Findings: Good lab work in pulse circuit design and analysis. 90%
Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

SLO 6.2: Use electrical troubleshooting tools properly

Students will use electrical troubleshooting tools properly.

No measures specified

SLO 6.3: Debugs logic and software applications

Students will debug logic and software applications successfully.

Measure: Evaluation of selected lab work
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 444

Target: 85%

Implementation Plan (timeline): Annual

Responsible Individual(s): EET Program Champion

Findings for Evaluation of selected lab work

No Findings Added

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

Measure: Evaluation of inclass team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437

Target: 85%

Implementation Plan (timeline): Fall

Responsible Individual(s): EET Program Champion

Findings for Evaluation of inclass team project

Summary of Findings: Good teamwork observed. 85%

Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Measure: Evaluation of inclass team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437

Target: 85%

Implementation Plan (timeline): Fall

Responsible Individual(s): EET Program Champion

Findings for Evaluation of inclass team project

Summary of Findings: Improvement here but the quality of the writing in the team project documents was still less than professional level. 80% at best. More work on this is planned for the 15-16 cycle.

Results: Target Achievement: Not Met

Recommendations :

Reflections/Notes :

SLO 7.3: Formality and respect in communication

Students will understand the need for formality and respect in communication.

Measure: Evaluation of inclass team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437

Target: 85%

Implementation Plan (timeline): Fall

Responsible Individual(s): EET Program Champion

Findings for Evaluation of inclass team project

Summary of Findings: Good.

Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn

No measures specified

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism

Students will demonstrate professionalism.

Measure: Evaluation of inclass team project
Direct - Student Artifact

Details/Description: Source of Assessment: ECT 437

Target: 85%

Implementation Plan (timeline): Fall

Responsible Individual(s): EET Program Champion

Findings for Evaluation of inclass team project

Summary of Findings: Good.

Results: Target Achievement: Met
Recommendations :
Reflections/Notes :

SLO 9.2: Understands and exhibits ethics Students will understand and exhibit ethics.	*No measures specified*
SLO 9.3: Understands the role of professional societies Students will understand the role of professional societies.	*No measures specified*

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace Students will understand the automated control system marketplace.	*No measures specified*
SLO 10.2: Understands social responsibility Students will understand social responsibility.	*No measures specified*
SLO 10.3: Safe design practices and operations Students will understand the responsibility of safe design practices and operations.	*No measures specified*

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the breadth of quality concerns Students will understand the breadth of quality concerns.	*No measures specified*
SLO 11.2: Understands the importance of quality Students will understand the importance of quality.	*No measures specified*
SLO 11.3: Understands timeliness	*No measures specified*

and continuous improvement

Students will understand timeliness and continuous improvement.

Overall Recommendations

The modeling issue remains on hold until the ECT421 course material is revised during the upcoming cycle. Then the assessment can be redefined for this item for the 15-16 cycle. The writing quality issue remains with some improvement observed.Work will continue.

Overall Reflection

Two issues and mitigation plans are in place.

Action Plan

Actions

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design	*No actions specified*
SLO 1.2: Application of circuits, design, and application	*No actions specified*
SLO 1.3: Application of digital electronics	*No actions specified*
SLO 1.4: Application of computer programming and software	*No actions specified*
SLO 1.5: Apply science, math, and engineering tools Students will apply science, math, and engineering tools.	*No actions specified*
SLO 1.6: Apply PLCs, Robotics, and control system equipment Students will apply PLC's, Robotics, and control system equipment.	*No actions specified*
SLO 1.7: Engineering materials and manufacturing processes	*No actions specified*

Students will use fluid power, engineering materials and manufacturing processes.

SLO 1.8: Management techniques and processes

No actions specified

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design

Students will use mathematics in design.

No actions specified

SLO 2.2: Modeling for analysis

Action: Modeling

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: Major revision required in defining activity that embodies modeling. The modeling issue remains on hold until the ECT421 course material is revised during the upcoming cycle (Spring 2015). Then the assessment can be redefined for this item for the 15-16 cycle.

Implementation Plan (timeline): 15-16 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority: Medium

SLO 2.3: System design

No actions specified

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments

Students will conduct experiments.

No actions specified

SLO 3.2: Analysis and interpretation of laboratory exercise

No actions specified

SLO 3.3: Test plans

No actions specified

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design

No actions specified

SLO 4.2: Software and program development	*No actions specified*
SLO 4.3: System design and control	*No actions specified*

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member	*No actions specified*
SLO 5.2: Understands the purpose of teams Students will understand the purpose of teams.	*No actions specified*
SLO 5.3: Works and communicates well in the team setting Students will work and communicate well in the team setting.	*No actions specified*

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods Students will effectively use problem solving methods.	*No actions specified*
SLO 6.2: Use electrical troubleshooting tools properly Students will use electrical troubleshooting tools properly.	*No actions specified*
SLO 6.3: Debugs logic and software applications Students will debug logic and software applications successfully.	*No actions specified*

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications Students will exhibit good verbal communications.	*No actions specified*
SLO 7.2: Possesses good written communication skills Students will possess good written communication skills.	▼ **Action:** Written skills **This Action is associated with the following Findings** No supporting Findings have been linked to this Action. **Action Details:** Overall writing skills need work. Putting more grade points on written quality will force more attention to the subject. The writing quality issue remains with some improvement

observed.Work will continue.

This issue is a difficult one in that writing skills are not prominent task for technology education delivery. It is however very important that our graduates can communicate effectively in writing. ECT437 project management is a good place to work on this. Work will continue.

Implementation Plan (timeline): 15-16 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority: Medium

SLO 7.3: Formality and respect in communication Students will understand the need for formality and respect in communication.	*No actions specified*

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn	*No actions specified*

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism Students will demonstrate professionalism.	*No actions specified*
SLO 9.2: Understands and exhibits ethics Students will understand and exhibit ethics.	*No actions specified*
SLO 9.3: Understands the role of professional societies Students will understand the role of professional societies.	*No actions specified*

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace Students will understand the automated control system marketplace.	*No actions specified*

SLO 10.2: Understands social responsibility Students will understand social responsibility.	*No actions specified*
SLO 10.3: Safe design practices and operations Students will understand the responsibility of safe design practices and operations.	*No actions specified*

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the breadth of quality concerns Students will understand the breadth of quality concerns.	*No actions specified*
SLO 11.2: Understands the importance of quality Students will understand the importance of quality.	*No actions specified*
SLO 11.3: Understands timeliness and continuous improvement Students will understand timeliness and continuous improvement.	*No actions specified*

Status Report

Action Statuses

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design	*No actions specified*
SLO 1.2: Application of circuits, design, and application	*No actions specified*
SLO 1.3: Application of digital electronics	*No actions specified*

SLO 1.4: Application of computer programming and software	*No actions specified*
SLO 1.5: Apply science, math, and engineering tools Students will apply science, math, and engineering tools.	*No actions specified*
SLO 1.6: Apply PLCs, Robotics, and control system equipment Students will apply PLC's, Robotics, and control system equipment.	*No actions specified*
SLO 1.7: Engineering materials and manufacturing processes Students will use fluid power, engineering materials and manufacturing processes.	*No actions specified*
SLO 1.8: Management techniques and processes	*No actions specified*

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design Students will use mathematics in design.	*No actions specified*
SLO 2.2: Modeling for analysis	**Action:** Modeling

Action Details: Major revision required in defining activity that embodies modeling. The modeling issue remains on hold until the ECT421 course material is revised during the upcoming cycle (Spring 2015). Then the assessment can be redefined for this item for the 15-16 cycle.

Implementation Plan (timeline): 15-16 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority: Medium

Status for Modeling

No Status Added

SLO 2.3: System design	*No actions specified*

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments Students will conduct experiments.	*No actions specified*
SLO 3.2: Analysis and interpretation of laboratory exercise	*No actions specified*
SLO 3.3: Test plans	*No actions specified*

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design	*No actions specified*
SLO 4.2: Software and program development	*No actions specified*
SLO 4.3: System design and control	*No actions specified*

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member	*No actions specified*
SLO 5.2: Understands the purpose of teams Students will understand the purpose of teams.	*No actions specified*
SLO 5.3: Works and communicates well in the team setting Students will work and communicate well in the team setting.	*No actions specified*

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods Students will effectively use problem solving methods.	*No actions specified*
SLO 6.2: Use electrical troubleshooting tools properly	*No actions specified*

Students will use electrical troubleshooting tools properly.

SLO 6.3: Debugs logic and software applications

Students will debug logic and software applications successfully.

No actions specified

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

No actions specified

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Action: Written skills

Action Details: Overall writing skills need work. Putting more grade points on written quality will force more attention to the subject. The writing quality issue remains with some improvement observed.Work will continue.

This issue is a difficult one in that writing skills are not prominent task for technology education delivery. It is however very important that our graduates can communicate effectively in writing. ECT437 project management is a good place to work on this. Work will continue.

Implementation Plan (timeline): 15-16 cycle

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority: Medium

Status for Written skills

No Status Added

SLO 7.3: Formality and respect in communication

Students will understand the need for formality and respect in communication.

No actions specified

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn

No actions specified

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism Students will demonstrate professionalism.	*No actions specified*
SLO 9.2: Understands and exhibits ethics Students will understand and exhibit ethics.	*No actions specified*
SLO 9.3: Understands the role of professional societies Students will understand the role of professional societies.	*No actions specified*

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace Students will understand the automated control system marketplace.	*No actions specified*
SLO 10.2: Understands social responsibility Students will understand social responsibility.	*No actions specified*
SLO 10.3: Safe design practices and operations Students will understand the responsibility of safe design practices and operations.	*No actions specified*

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the breadth of quality concerns Students will understand the breadth of quality concerns.	*No actions specified*
SLO 11.2: Understands the importance of quality Students will understand the importance of quality.	*No actions specified*
SLO 11.3: Understands timeliness and continuous improvement	*No actions specified*

Students will understand timeliness and continuous improvement.

Status Summary

No text specified

Summary of Next Steps

No text specified

2014-2015 Assessment Cycle

Assessment Plan

Outcomes and Measures

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design

No measures specified

SLO 1.2: Application of circuits, design, and application

Measure: Evaluation of selected in-class work
Direct - Student Artifact

Details/Description: ECT448
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

SLO 1.3: Application of digital electronics

No measures specified

SLO 1.4: Application of computer programming and software

Measure: Evaluation of selected in-class problem lab
Direct - Student Artifact

Details/Description: ECT281
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET team

SLO 1.5: Apply science, math, and engineering tools

Students will apply science, math, and engineering tools.

No measures specified

SLO 1.6: Apply PLCs, Robotics, and control system equipment

Students will apply PLC's, Robotics, and control system equipment.

Measure: Evaluation of in-class selected project
Direct - Student Artifact

Details/Description: ECT444
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

SLO 1.7: Engineering materials and manufacturing processes Students will use fluid power, engineering materials and manufacturing processes.	*No measures specified*
SLO 1.8: Management techniques and processes	*No measures specified*

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design Students will use mathematics in design.	*No measures specified*
SLO 2.2: Modeling for analysis	**Measure:** Evaluation of in-class selected project Direct - Student Artifact **Details/Description:** ECT421 **Target:** 85% **Implementation Plan (timeline):** Annual **Responsible Individual(s):** EET team
SLO 2.3: System design	*No measures specified*

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments Students will conduct experiments.	*No measures specified*
SLO 3.2: Analysis and interpretation of laboratory exercise	*No measures specified*
SLO 3.3: Test plans	*No measures specified*

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design	**Measure:** Evaluation of selected lab work Direct - Student Artifact **Details/Description:** ECT325

Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

SLO 4.2: Software and program development

Measure: Evaluation of performance selected lab
Direct - Student Artifact

Details/Description: ECT444
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

SLO 4.3: System design and control

No measures specified

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET team

SLO 5.2: Understands the purpose of teams

Students will understand the purpose of teams.

Measure: Evaluation of team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline):
Responsible Individual(s): EET team

SLO 5.3: Works and communicates well in the team setting

Students will work and communicate well in the team setting.

Measure: Evaluation of team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET team

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods

Measure: Evaluation of selected lab work
Direct - Student Artifact

Students will effectively use problem solving methods.

Details/Description: ECT343
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

SLO 6.2: Use electrical troubleshooting tools properly

Students will use electrical troubleshooting tools properly.

No measures specified

SLO 6.3: Debugs logic and software applications

Students will debug logic and software applications successfully.

Measure: Evaluation of selected lab work
Direct - Student Artifact

Details/Description: ECT444
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET team

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

SLO 7.3: Formality and respect in communication

Students will understand the need for formality and respect in communication.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET team

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn

No measures specified

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism

Students will demonstrate professionalism.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET team

SLO 9.2: Understands and exhibits ethics

Students will understand and exhibit ethics.

No measures specified

SLO 9.3: Understands the role of professional societies

Students will understand the role of professional societies.

No measures specified

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace

Students will understand the automated control system marketplace.

No measures specified

SLO 10.2: Understands social responsibility

Students will understand social responsibility.

No measures specified

SLO 10.3: Safe design practices and operations

Students will understand the responsibility of safe design practices and operations.

No measures specified

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the

No measures specified

breadth of quality concerns Students will understand the breadth of quality concerns.	
SLO 11.2: Understands the importance of quality Students will understand the importance of quality.	*No measures specified*
SLO 11.3: Understands timeliness and continuous improvement Students will understand timeliness and continuous improvement.	*No measures specified*

Revised EET 2013-14 Assessment

Outcome	
SLO 1.2: Application of circuits, design and application	*No measures specified*

Assessment Findings

Finding per Measure

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.1: Application of circuit analysis and design	*No measures specified*
SLO 1.2: Application of circuits, design, and application	**Measure:** Evaluation of selected in-class work Direct - Student Artifact

Details/Description: ECT448
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

Findings for Evaluation of selected in-class work

No Findings Added

SLO 1.3: Application of digital electronics	*No measures specified*

SLO 1.4: Application of computer programming and software

Measure: Evaluation of selected in-class problem lab
Direct - Student Artifact

Details/Description: ECT281
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET team

Findings for Evaluation of selected in-class problem lab

No Findings Added

SLO 1.5: Apply science, math, and engineering tools

Students will apply science, math, and engineering tools.

No measures specified

SLO 1.6: Apply PLCs, Robotics, and control system equipment

Students will apply PLC's, Robotics, and control system equipment.

Measure: Evaluation of in-class selected project
Direct - Student Artifact

Details/Description: ECT444
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

Findings for Evaluation of in-class selected project

No Findings Added

SLO 1.7: Engineering materials and manufacturing processes

Students will use fluid power, engineering materials and manufacturing processes.

No measures specified

SLO 1.8: Management techniques and processes

No measures specified

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.1: Use mathematics in design

Students will use mathematics in design.

No measures specified

SLO 2.2: Modeling for analysis

Measure: Evaluation of in-class selected project
Direct - Student Artifact

Details/Description: ECT421
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

Findings for Evaluation of in-class selected project

No Findings Added

SLO 2.3: System design

No measures specified

Program Objective C: Experiment and apply results

Students will experiment and apply results.

SLO 3.1: Conduct experiments

Students will conduct experiments.

No measures specified

SLO 3.2: Analysis and interpretation of laboratory exercise

No measures specified

SLO 3.3: Test plans

No measures specified

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design

Measure: Evaluation of selected lab work
Direct - Student Artifact

Details/Description: ECT325
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

Findings for Evaluation of selected lab work

No Findings Added

SLO 4.2: Software and program development

Measure: Evaluation of performance selected lab
Direct - Student Artifact

Details/Description: ECT444
Target: 85%
Implementation Plan (timeline): Annual

Responsible Individual(s): EET team

Findings for Evaluation of performance selected lab

No Findings Added

SLO 4.3: System design and control

No measures specified

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET team

Findings for Evaluation of in-class team project

No Findings Added

SLO 5.2: Understands the purpose of teams

Students will understand the purpose of teams.

Measure: Evaluation of team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline):
Responsible Individual(s): EET team

Findings for Evaluation of team project

No Findings Added

SLO 5.3: Works and communicates well in the team setting

Students will work and communicate well in the team setting.

Measure: Evaluation of team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET team

Findings for Evaluation of team project

No Findings Added

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods

Students will effectively use problem solving methods.

Measure: Evaluation of selected lab work
Direct - Student Artifact

Details/Description: ECT343
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

Findings for Evaluation of selected lab work

No Findings Added

SLO 6.2: Use electrical troubleshooting tools properly

Students will use electrical troubleshooting tools properly.

No measures specified

SLO 6.3: Debugs logic and software applications

Students will debug logic and software applications successfully.

Measure: Evaluation of selected lab work
Direct - Student Artifact

Details/Description: ECT444
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

Findings for Evaluation of selected lab work

No Findings Added

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET team

Findings for Evaluation of in-class team project

No Findings Added

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline): Annual
Responsible Individual(s): EET team

Findings for Evaluation of in-class team project

No Findings Added

SLO 7.3: Formality and respect in communication

Students will understand the need for formality and respect in communication.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET team

Findings for Evaluation of in-class team project

No Findings Added

Program Objective H: Embrace lifelong learning

Students will embrace lifelong learning.

SLO 8.1: Demonstrates a desire to learn

No measures specified

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism

Students will demonstrate professionalism.

Measure: Evaluation of in-class team project
Direct - Student Artifact

Details/Description: ECT437
Target: 85%
Implementation Plan (timeline): Fall
Responsible Individual(s): EET team

Findings for Evaluation of in-class team project

No Findings Added

SLO 9.2: Understands and exhibits ethics

Students will understand

No measures specified

and exhibit ethics.

SLO 9.3: Understands the role of professional societies Students will understand the role of professional societies.	*No measures specified*

Program Objective J: Diversity and responsibilities

Students will respect diversity and professional responsibilities.

SLO 10.1: Automated control system marketplace Students will understand the automated control system marketplace.	*No measures specified*
SLO 10.2: Understands social responsibility Students will understand social responsibility.	*No measures specified*
SLO 10.3: Safe design practices and operations Students will understand the responsibility of safe design practices and operations.	*No measures specified*

Program Objective K: Embrace quality

Students will embrace quality.

SLO 11.1: Understands the breadth of quality concerns Students will understand the breadth of quality concerns.	*No measures specified*
SLO 11.2: Understands the importance of quality Students will understand the importance of quality.	*No measures specified*
SLO 11.3: Understands timeliness and continuous improvement Students will understand timeliness and continuous improvement.	*No measures specified*

Revised EET 2013-14 Assessment

Outcome

SLO 1.2: Application of circuits, design and application	*No measures specified*

Overall Recommendations

No text specified

Overall Reflection

No text specified

Action Plan

Status Report

2015-2016 Assessment Cycle

Assessment Plan

Outcomes and Measures

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.2: Application of circuits, design, and application

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 448
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 1.4: Application of computer programming and software

Measure: Evaluation of in-class problem solving per rubric
Direct - Student Artifact

Details/Description: Data collected in ACT 281
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 1.6: Apply PLCs, Robotics, and control system equipment

Students will apply PLC's, Robotics, and control system equipment.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 444
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.2: Modeling for analysis

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 325
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 4.2: Software and program development

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 444
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 5.2: Understands the purpose of teams

Students will understand the purpose of teams.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 5.3: Works and communicates well in the team setting

Students will work and communicate well in the team setting.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods

Students will effectively use problem solving methods.

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 6.3: Debugs logic and software applications

Students will debug logic and software applications successfully.

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 444
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

SLO 7.3: Formality and respect in communication

Students will understand the need for formality and respect in communication.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism

Students will demonstrate professionalism.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Assessment Findings

Finding per Measure

BS in Electronics Engineering Technology Outcome Set

Program Objective A: Mastery of knowledge and tools

SLO 1.2: Application of circuits, design, and application

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 448
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project per rubric

No Findings Added

SLO 1.4: Application of computer programming and software

Measure: Evaluation of in-class problem solving per rubric
Direct - Student Artifact

Details/Description: Data collected in ACT 281
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class problem solving per rubric

No Findings Added

SLO 1.6: Apply PLCs, Robotics, and control system equipment

Students will apply PLC's, Robotics, and control system equipment.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 444
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)

Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project per rubric

No Findings Added

Program Objective B: Apply technical knowledge

Students will apply technical knowledge.

SLO 2.2: Modeling for analysis

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project per rubric

No Findings Added

Program Objective D: Be creative in design and application

Students will be creative in design and application.

SLO 4.1: Circuit design

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 325
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of lab work in class per rubric

No Findings Added

SLO 4.2: Software and program development

Measure: Evaluation of performance per semester project rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 444
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of performance per semester project rubric

No Findings Added

Program Objective E: Function effectively in environment

Students will function effectively in the team environment.

SLO 5.1: Effective team member

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project per rubric

No Findings Added

SLO 5.2: Understands the purpose of teams

Students will understand the purpose of teams.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project per rubric

No Findings Added

SLO 5.3: Works and communicates well in the team setting

Students will work and communicate well in the team setting.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project per rubric

No Findings Added

Program Objective F: Effective problem solving

SLO 6.1: Effectively use problem solving methods

Students will effectively use problem solving methods.

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 406
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)

Responsible Individual(s): EET Program Champion

Findings for Evaluation of lab work in class per rubric

No Findings Added

SLO 6.3: Debugs logic and software applications

Students will debug logic and software applications successfully.

Measure: Evaluation of lab work in class per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 444
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of lab work in class per rubric

No Findings Added

Program Objective G: Effective communication

SLO 7.1: Exhibits good verbal communications

Students will exhibit good verbal communications.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project per rubric

No Findings Added

SLO 7.2: Possesses good written communication skills

Students will possess good written communication skills.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project per rubric

No Findings Added

SLO 7.3: Formality and respect in communication

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Students will understand the need for formality and respect in communication.

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project per rubric

No Findings Added

Program Objective I: Professional responsibilities

Students will understand professional and ethical responsibilities.

SLO 9.1: Demonstrates professionalism

Students will demonstrate professionalism.

Measure: Evaluation of in-class project per rubric
Direct - Student Artifact

Details/Description: Data collected in ECT 437
Target:
Implementation Plan (timeline): F2012, F2015, (3 year cycle)
Responsible Individual(s): EET Program Champion

Findings for Evaluation of in-class project per rubric

No Findings Added

Overall Recommendations

No text specified

Overall Reflection

No text specified

Action Plan

Status Report

2016-2017 Assessment Cycle

Assessment Plan

Assessment Findings

2017-2018 Assessment Cycle

Assessment Plan

Assessment Findings

2018-2019 Assessment Cycle

Assessment Plan

Assessment Findings

2019-2020 Assessment Cycle

Assessment Plan

Assessment Findings

Appendix

A. **Automation And Control Engineering Technology** (Curriculum Map)
B. **Electronics Engineering Technology** (Curriculum Map)
C. **Self-Study Report- March 2010** (Word Document (Open XML))
D. **Self-Study February 2010** (Word Document (Open XML))

The Evaluation plan is shown in Figure 6.16.

Figure 6.16:
Program Outcome assessment plan for ET

Summary of courses where assessment will take place:
ECT 232 (1), 281 (1), 321 (1), 325 (1), 343 (2), 430 (1), 437 (6), 444 (4), 448 (3), 488 (12); MET 203 (1); TMGT 471 (1), 478 (3)

Outcome A - Mastery of knowledge & tools

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Application of circuit analysis and design.	ECT 221, 321, 421	Evaluation of in-class problem solving per rubric	ECT 321	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
2. Application of circuits, design, and application.	ECT 165, 167, 324, 325, 343, 448	Evaluation of in-class project per rubric	ECT 448			
3. Application of Digital Electronics	ECT 231, 232	Evaluation of performance per semester project rubric	ECT 232	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
4. Application of computer programming and associated software	CS 151, 256; ECT 165, 167, 281, 444	Evaluation of in-class problem solving per rubric	ECT 281			

5. Apply science, math, and engineering tools	Physical science courses (8hrs); MATH 115, 301; MET 103, ECT 381, 437, 448, 488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
6. Apply PLCs, Robotics, and control system equipment	ECT 281, 280, 444, 488	Evaluation of in-class project per rubric	ECT444	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
7. Use fluid power, engineering materials and manufacturing processes	MET329; MFG225, 370,371; ECT488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
8. Management techniques of systems and processes	ECT 437, 488; TMGT 478,471,473,492	Evaluation of in-class project per rubric	ECT437	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome B - Apply technical knowledge

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Use mathematics in design	Physical science courses (8hrs); MET103; ECT165,167,231, 221, 324, 448, 488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
2. Modeling for analysis	MET203	Evaluation of in-class project per rubric	MET203	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
3. System design	MET299; ECT488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome C - Experiment and apply results

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Conduct Experiments	Physical science lab courses (2hrs); ECT 167, 281, 448, 488; MET 329	Evaluation of lab work in class per rubric	ECT 448	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
2. Analysis and interpretation of laboratory exercises	ECT 167, 324, 325, 343, 448, 488	Evaluation of lab work in class per rubric	ECT 343	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
3. Test plans	ECT488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome D - Be creative in design and application

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Circuit design	ECT 165, 167, 232, 324, 325, 343, 448	Evaluation of lab work in class per rubric	ECT 325	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
2. Software and program development	CS 151, CS256; ECT 165, 167, 281, 444, 488; MET 329	Evaluation of performance per semester project rubric	ECT444	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
3. System design and control	ECT 324, 448, 488	Evaluation of lab work in class per rubric	ECT 448	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team

Outcome E - Function effectively in the team environment

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Effective team member	Physical Science lab courses (2 hrs); MET329; ECT165, 167, 324, 325, 437, 488; TMGT 471, 478, 492	Evaluation of in-class project per rubric	TMGT 478	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
2. Understands the purpose of teams	Physical Science lab courses (2 hrs); MET329; ECT165, 167, 324, 325, 437, 488; TMGT 471, 478, 492	Evaluation of in-class project per rubric	ECT437	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
3. Works and communicates well in the team setting	Physical Science lab courses (2 hrs); MET329; ECT165, 167, 324, 325, 437, 488; TMGT 471, 478, 492	Evaluation of in-class project per rubric	ECT437	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome F - Effective problem solving

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Effectively used problem solving methods	Physical Science lab courses (2 hrs); MET329; ECT165, 167, 324, 325, 437, 488; TMGT 471, 478, 492	Evaluation of lab work in class per rubric	TMGT 471	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
2. Use electrical troubleshooting tools properly	ECT 165, 167, 324, 325, 343, 448, 488	Evaluation of lab work in class per rubric	ECT 343	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
3. Debugs logic and software applications successfully	CS256; ECT 281, 280, 444, 488	Evaluation of lab work in class per rubric	ECT444	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome G - Effective communication

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Exhibits good verbal communications	Foreign Language Studies (6 hrs); COM101; ECT437 ,488; TMGT 478, 471, 492,	Evaluation of in-class project per rubric	TMGT 478	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
2. Possesses good written communication skills	ENG101,105,107, 305T; ECT165,167,437,488; TMGT478	Evaluation of in-class project per rubric	ECT 437	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

3. Understands the need for formality and respect in communication	Foreign Language Studies (6 hrs); ENG101,105,107, 305T; ECT165,167,437,488; TMGT478,492	Evaluation of in-class project per rubric	ECT437	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome H - Embrace lifelong learning

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Demonstrates a desire to learn	Every course	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome I - Understands professional and ethical responsibilities

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Demonstrates professionalism	ECT 165, 167, 324, 325, 343, 448, 488; TMGT 471, 478, 492	Evaluation of in-class project per rubric	ECT437	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
2. Understands and exhibits ethics	Foreign Language Studies (6hrs); Social and Behavioral Studies 6hrs); Literary, Artistic & Phil. Studies (6hrs); Historical Studies (3 hrs); Multi-cultural Studies (6 hrs); Liberal Studies Capstone (3 hrs);TMGT478,492, ECT437,488	Evaluation of in-class project per rubric	TMGT478	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
3. Understands the role of professional societies	ECT 130, 430, 437	Evaluation of in-class project per rubric	ECT430	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome J - Respect diversity and professional responsibilities

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Understands the automated control system marketplace	ECT 430, 444, 437,488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
2. Understands social responsibility	Foreign Language Studies (6hrs); Social and Behavioral Studies 6hrs); Literary, Artistic & Phil. Studies (6hrs); Historical Studies (3 hrs); Multi-cultural Studies (6 hrs); Liberal Studies Capstone (3 hrs);TMGT478,492, ECT437,488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
3. Understands the responsibility of safe design practices and operations	TMGT 471, 478, 492; ECT 430, 437, 444, 488; MET329	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome K - Embrace quality

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Understands the breadth of quality concerns	ECT 325, 343, 444, 437, 448, 488; MET 329; TMFG 471, 478, 492	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
2. Understands the importance of quality	ECT 325, 343, 444, 437, 448, 488; MET 329; MFG 370, 371; TMGT 471, 478, 492	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
3. Understands timeliness and continuous improvement	ECT 325, 343, 444, 437, 448, 488; MET 329; MFG 370, 371; TMGT 471, 478, 492	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Figure 6.16:
Program Outcome assessment plan for ET

As this is a new procedure beginning in 2010, no data is available at this time.

6.3.12 Program Validation: Validation of program of study outcomes/student competencies shall be an on-going process and shall be accomplished through a combination of external experts, industrial advisory committee(s), and follow-up studies of program graduates. Documentation of this validation shall be provided in the Self-Study.

The process to evaluate and revise educational objectives and outcomes is illustrated in detail in Figure 1. The Figure shows the feedback loops that lead to continuous refinement of educational objectives and curriculum improvement. Data sources and the respective individuals or units in charge of each link are highlighted. The loop that involves educational objectives review and update is executed every six years, it assures periodic evaluation and redefinition (if necessary) of the current educational objectives and outcomes. The program outcomes and curriculum review loop is executed annually and focuses primarily on outcomes assessment and curricular improvements. The two cycles are linked together through program outcomes report.

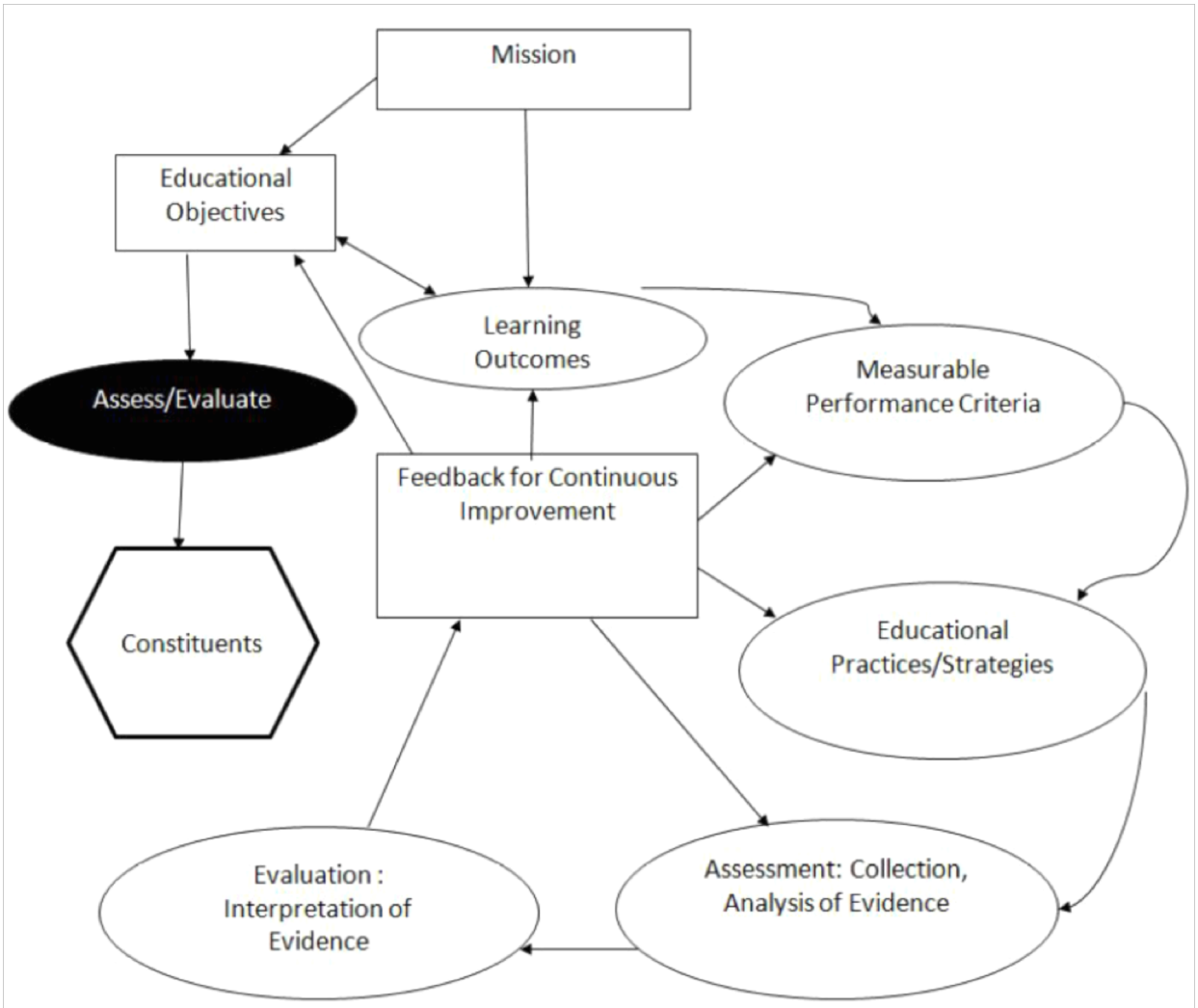

Figure 1: Program Evaluation Flowchart

6.3.13 Program Development, Revision, and Evaluation: Major program development, revision, and evaluation shall involve currently enrolled students, individuals responsible for instruction, program graduates, and representative employers.

The courses, matriculation sequence and objectives for the undergraduate program have been continually involved in a sequence of process and product evaluation. During the Fall Semester, 2009, faculty were involved in a major program revision in evaluation technique and process. The intent of this effort is to assist program development, and have a clearly defined cycle of evaluation of program effectiveness and success. (See *Figure 6.3.11 above).*

6.3.14 Transfer Course Work: Institution and/or department policies shall be used to evaluate course work transferred from other institutions. All programs/options, including those with a significant amount of transfer work, must meet the minimum credit hour foundation course requirements (Table 6.1) in each curricular category.

Policies are in existence to ensure that course work transferred from other institutions is comparable to course work offered at Indiana State University. Transfer applications are reviewed at the Department level and are submitted to the College Dean. Articulation agreements with qualified institutions are then signed. The Electronics Technology program has established articulation agreement with sister programs at several colleges and regional universities that allow students to complete an associate degree and credit towards a bachelor degree at ISU. Each articulation agreement stipulates the ISU courses needed to complete the bachelor degree, and requirements or guidelines that govern the agreement. An associate degree holder from these institutions is credited with a "block transfer", meaning courses with a "C" or higher would directly substitute for a "Block" of ISU equivalents without additional scrutiny. These agreements help pre-establish course equivalency and ease the transition to ISU. They are also reviewed and revised if necessary every two years to assure the courses are well-aligned at both institutions.

The University is also a participant in the ***U.Select (Formally CAS) System***, an online tool that will allow students to view program requirements, course equivalencies, and see how courses they have taken or plan to take transfer to another college or university. See: https://in.transfer.org/cas/login.htm . The Office of Degree Audit and Transfer maintains current listings of articulated programs and course equivalencies between Indiana State University and other colleges and universities. Interested students should consult the Web site: http://web.indstate.edu/transfer/

6.3.15 Upper Division Course Work: Students shall successfully complete a minimum of 15 semester hours of junior and/or senior level major courses at the institution seeking program accreditation.

The curriculum requirement for earning a Bachelor of Science Degree in Electronics Technology includes the successful completion of 50 semester-hours of credit in 300 or 400-level courses.
The following University guidelines govern transfer of courses:
Only transfer credits earned in college-level courses (typically numbered 100 or higher) from a regionally accredited college or university will be assigned credit.
Only transfer courses in which a grade of C or higher was earned will be assigned credit; courses with a grade of C- or below will not be assigned credit.
A maximum of 94 transfer credits may be assigned toward a bachelor's degree. Of this, no more than 64 semester-hours may have been earned at a two-year institution.

Departmental policy requires that a transfer student must complete at least 15 hours of major courses at ISU. Transfer credits are assigned only for college-level courses.

6.3.16 Program Publicity - Adequate and Accurate Public Disclosure: Institutions shall broadly and accurately publicize, particularly to prospective students: (a) Industrial Technology program goals and objectives, (b) preadmission testing or evaluation requirements and standards, (c) assessment measures used to advance students through the program(s), (d) fees and other charges.

Indiana State University, in affirming its commitment to excellence, recognizes the value of a student population reflecting academic achievement, cultural diversity, and special talent. The University's admissions policies allow for the individual consideration of each applicant and help service a student population with these characteristics.
The primary criterion for admission is evidence that a candidate is prepared to succeed in a degree program. Admission standards are stated in terms of traditional school and college grading systems. For applicants whose records include either a high proportion of nontraditional grades, or a subject pattern which departs markedly from that normally associated with university study, additional evidence of academic potential in support of their applications, such as entrance examinations, interviews, and letters of recommendation, may be requested. The admission of applicants who are older than the traditional college age will be determined individually, with special attention given to employment experience and motivation. Admission requirements may be found at: http://catalog.indstate.edu/content.php?catoid=7&navoid=127

Potential students who are seeking information about the undergraduate program in Electronics Technology receive information from the Admissions Office at Indiana State University. The Undergraduate Catalog: http://catalog.indstate.edu/index.php?catoid=7 and other descriptive materials that the Admissions Office provides to potential applicants, include information about: 1) the program goals and objectives; 2) pre-admission testing or evaluation requirements and standards; 3) assessment measures used to advance students through the program; 4) fees and other charges.

The University Publications Office provides brochures for the ET program. The current edition of these brochures reflects the current curriculum. Additionally, the Department has a Web page: http://www1.indstate.edu/ecmet/index.htm . Copies of the brochure and other advertising materials are available.

A support unit in the College of Technology, the Office of Technology Student Services, also provides information and disclosure to prospective students via recruitment activities such as College Tech Prep Days, Hands-on High Tech, and Tech T.R.E.K, days where prospective students come to campus for participation in activities, competitions, and informative interaction with Faculty, Staff, and Students.

6.3.17 Legal Authorization: Only institutions and programs legally authorized under applicable state law to provide degree programs beyond the secondary level, and are recognized by the appropriate national or regional accrediting agency, are considered for ATMAE accreditation.

ISU is governed by a Board of Trustees composed of nine persons appointed by the Governor of the State of Indiana. Two of the nine are nominated for consideration by the Governor, by the Alumni Board of the University, and one of the nine, a student member, is appointed by the Governor from nominations submitted by the Student Government Association's Search and Screen Committee.

The University is administered by a president, who reports to the Board of Trustees as the University's chief executive officer. The campus is organized into four broad operations areas: academic affairs; business and finance; enrollment management, marketing, and communications; and student affairs. Each area is headed by a vice president who reports directly to the president.

ISU has six academic divisions, each headed by a dean who reports to the Provost and Vice President for Academic Affairs. The divisions include the Colleges of Arts and Sciences; Business; Education; Nursing, Health, and Human Services; and Technology; and the School of Graduate Studies.

ISU offers associate, baccalaureate, masters, specialist, and doctoral degrees. The University is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools, http://www.ncahigherlearningcommission.org/ 312-263-0456. Academic programs across the colleges are accredited by more than 30 different agencies. In addition, the University holds institutional membership in at least ten major national associations.
The basic Carnegie classification for ISU is Doctoral/Research University. Institutions with this label offer a wide range of baccalaureate programs and are committed to graduate education through both master and doctoral degrees.

The Bachelor of Science Degree in Electronics Technology has been approved by Indiana State University and the Indiana Commission for Higher Education. Accordingly, it receives endorsement from both the University and the State.

6.4 Instruction

6.4.1 Course syllabi: Course syllabi must be presented which clearly describe appropriate course objectives, content, references utilized, student activities, and evaluation criteria. Representative examples of student's graded work shall be available for coursework

For each course, professors are required to provide syllabi which clearly describe appropriate course objectives, content, references utilized, student activities, and evaluation criteria. A prepared notebook containing the syllabus, student handouts, and representative graded work has been prepared. For accreditation review, these are included in Room TC 314.

6.4.2 Reference Materials: Appropriate reference materials such as periodicals, audio-visual materials, websites, and computer application software (when appropriate) shall be utilized for each course or series of courses to supplement textbooks or course packs.

Appropriate reference books, library periodicals, and computer application software is available for each course. Listed reference books, and computer search services are in the main library. A technical library is also housed in the Department's Conference Room. Various technical periodicals are received by faculty and later placed in a distribution area for student use.

The University Library houses technical-related books, periodicals, etc. This material is available to the student. Faculty are encouraged to utilize this material in their classes to supplement required course texts.

The World Wide Web has become a major source for acquiring technical publications and data references for materials used in ET courses. Many courses also provide a Black Board web site that has lectures and additional materials for students to have open access to aiding them in studying course materials.

6.4.3 Program Balance: Appropriate laboratory activity shall be included in the program(s) and a reasonable balance must be maintained in course work between the practical application of "how" and the theoretical/conceptual emphasis of "why."

Of the offered Electronics Technology courses, only four courses (12 semester hours) are primarily lecture-oriented. For the Electronics Technology program ECT 165, ECT 167, ECT 232, ECT 281, ECT 324, ECT 325, ECT 343, ECT 444, and ECT 448 are laboratory based courses that are lecture/laboratory in nature; for these, approximately 50% of the class time is devoted to laboratory experience. The University Undergraduate Catalog references each program offered by the various departments. The ECMET department notes in this Catalog all courses and which courses include a laboratory component with additional contact hours.

6.4.4 Problem-Solving Activities: Emphasis in instruction shall be focused on problem-solving activities which reflect contemporary industrial applications.

The baccalaureate curriculum is saturated with problem solving activity. As students acquire more information, they are introduced to more intensive problem-solving processes that relate to circuit design, troubleshooting, and analysis. Finally, 400-level courses require students to synthesize and evaluate component, circuit, or system applications as they relate to business or industry. Students also have the opportunity to hold one of several "positions" in the Simulated Industrial Manufacturing Company, SIMCO, in the course TMGT 478, that allow them to experience problem solving from a variety of perspectives. Many courses have assigned homework, in-class problem solving activities (both individual and group-based), and laboratory exercises that require students to apply fundamental, theory, and applied concepts. Examples of this type of work have been placed in the Course Notebooks in Room TC 314.

As part of the ECT Industrial Advisory Board (IAB) meetings, there is a regular session on curricula. During this session faculty and IAB members discuss the content of the curricula in regards to what IAB members perceive as a necessary part of the curricula in order to meet the demands of industry. The minutes of the IAB meetings are below in Standard 6.14.2.

6.4.5 Supervision of Instruction: Appropriate supervision of instruction shall be evident throughout the program.

The faculty have recently approved an evaluation document that identifies procedures for evaluating teaching effectiveness. The documented procedures, in the following sections: entitled Handbook on Policies, Guidelines, and Standards for Appointment, Reappointment/Tenure, Promotion, Graduate Faculty, and Sabbaticals (dated July 2001), http://www.indstate.edu/adminaff/policyindex.htm indicate how instruction is to be evaluated by students, colleagues, and administrators. This guidelines document is included in the centrally located files. Additionally the department follows the guidelines

in the College Promotion and Tenure Document - Evaluation Methods and Documentation of Teaching Effectiveness, February 18, 2009.

6.4.6 Scheduling of Instruction: The organization and scheduling of instruction shall allow adequate time for completion of appropriate homework assignments and laboratory problem-solving activities.

Each professor is responsible for the organization and content presentation necessary to meet the objectives and goals for the particular courses in the curriculum for which they have been assigned. All of the Department's faculties are experienced, full-time instructors. It is assumed, their organization and scheduling of instruction does allow adequate time for completion of appropriate homework assignments and laboratory problem-solving activities. Course Syllabi are on file in the prepared notebooks in Room TC 314.

6.5 Faculty

6.5.1 Full-time Faculty: Each program of study option shall have an adequate number of full-time faculty.

Although there are three lead faculty members for the electronics curriculum, and two lead faculty members for the computer curriculum, there is no major effort to separate the faculty between the two programs. In total, there are eight (8) full-time faculty within the Department. Their vitae are included in the Appendices.

6.5.2 Minimum Faculty Qualifications: The review of program faculty qualifications shall include current faculty resumes providing clear evidence documenting the extent and currency of: (a) academic preparation, (b) industrial experience at the management/supervisory levels, (c) applied industrial experience related to the program content area(s), (d) current certifications/licensure related to the program content area(s), (e) membership and participation in appropriate professional organizations, and (f) scholarly activities. The minimum academic qualifications for regular tenure track, or full time, faculty members shall be a graduate degree in a discipline closely related to the instructional assignment.

The majority of the Faculty hold earned Doctoral degrees. The remaining faculty have Master's degrees; with extensive course work beyond the minimum M. S. requirements. Five of the professors have from five to twenty five years of industrial experience prior to coming to ISU. They have also worked on numerous industrial projects during their teaching careers. Projects have included major corporations as SONY/DACD, Crane Naval Weapons Depot, and Pfizer. Faculty are actively involved with ATMAE, SME, ISA, EPT, and other professional organizations.

6.5.3 Academic Preparation of Faculty: A minimum of fifty percent of the regular tenure track, or full-time, faculty members assigned to teach in the program of study content area(s) shall have an earned doctorate or appropriately defined terminal degree. Exceptions may be granted to this standard if the institution has a program in place that will bring the faculty demographics into compliance within a reasonable period of time.

All graduate degrees possessed by faculty in the Department of Electronics and Computer Technology are from areas of: Electrical or Electronics

Technology/Engineering; Industrial Education; Industrial Technology; or Mathematics and Computer Science.

Department of Electronics, Computer, and Mechanical Engineering Technology
MING ZHOU; Ph.D., University of Arizona, *Chairperson. Department of Electronics, Computer, and Mechanical Engineering Technology, and Professor of Industrial and Mechanical Technology, 1995.*
TODD E. ALBERTS; M.S., Indiana State University, *Instructor in Electronics, Computer, and Mechanical Engineering Technology, 2007.*
JOE E. ASHBY; Ph.D., NOVA Southeastern University, *Assistant Professor of Electronics and Computer Technology, 2009.*
M. AFFAN BADAR; Ph.D., University of Oklahoma, *Associate Professor of Industrial and Mechanical Technology, 2002.*
DAVID P. BEACH; Ph.D., University of Missouri, *Professor of Electronics and Computer Technology, 1981.*
WILLIAM W. CLYBURN; Ed.D., Mississippi State University, *Associate Professor of Electronics and Computer Technology, 2001.*
PHILLIP COCHRANE; D.B.A. University of Phoenix, *Assistant Professor of Automotive Technology, 2006.*
GERALD W. COCKRELL; Ed.D., Indiana University, *Professor of Electronics and Computer Technology, 1977.*
WILLIAM E. CROFT; Ph.D., Indiana University, *Professor of Electronics and Computer Technology, 1983.*
ROBERT E. ENGLISH; Ed.D., Indiana University, *Associate Vice President, Academic Affairs, and Professor of Electronics and Computer Technology, 1982.*
XAIOLONG LI; Ph.D., University of Cincinnati, *Assistant Professor of Computer Engineering Technology, 2008.*
YUETONG LIN; Ph.D., University of Arizona, *Assistant Professor of Electronics and Computer Technology, 2002.*
DAVID J. MALOOLEY; M.S., Indiana University, *Associate Professor of Electronics and Computer Technology, 1979.*

6.5.4 Selection and Appointment Policies: Policies and/or procedures utilized in the selection and appointment of faculty shall be clearly specified and shall be conducive to the maintenance of high quality instruction.

The Department abides by the University policy on selection and appointment of faculty (Indiana State University Handbook). http://www.indstate.edu/adminaff/policyindex.htm The guidelines document identified previously indicates the policy and procedure to be utilized for the selection, and retention of regular faculty. (The Department guidelines can be found in a centrally located file.)

6.5.5 Tenure and Reappointment Policies: Faculty tenure and/or reappointment policies and procedures shall be comparable to other professional program areas in the institution. Requirements in the areas of teaching, service, and scholarly activity shall be clearly specified for faculty in Industrial Technology.

The guidelines document previously identified also indicates the tenure and reappointment policy for faculty in the Department of Electronics and Computer Technology. . This document totally endorses and substantiates procedures listed in the *University Faculty Handbook.* Requirements in the areas of teaching, service, and scholarly activity are clearly specified. (The COT guidelines for Promotion and Tenure can be found in a centrally located file.) Faculty are evaluated for teaching effectiveness for each course through the use of the Student Instructional Report, SIR, below. Copies of the SIR forms for Faculty are maintained by the Department.

SIR II STUDENT INSTRUCTIONAL REPORT II (SIR II)

SIR II Report Number

This questionnaire gives you the chance to comment anonymously about this course and the way it was taught. Using the rating scale below, mark the one response for each statement that is closest to your view. Fill in the appropriate circle to the right of the statement.

(5) Very Effective
(4) Effective
(3) Moderately Effective
(2) Somewhat Ineffective
(1) Ineffective
(0) Not applicable, not used in the course, or you don't know. In short, the statement does not apply to the course or instructor.

As you respond to each statement, think about each practice as it contributed to your learning in this course.

	Very Effective	Effective	Moderately Effective	Somewhat Ineffective	Ineffective	Not applicable
A. Course Organization and Planning						
1. The instructor's explanation of course requirements	5	4	3	2	1	0
2. The instructor's preparation for each class period	5	4	3	2	1	0
3. The instructor's command of the subject matter	5	4	3	2	1	0
4. The instructor's use of class time	5	4	3	2	1	0
5. The instructor's way of summarizing or emphasizing important points in class	5	4	3	2	1	0
B. Communication						
6. The instuctor's ability to make clear and understandable presentations	5	4	3	2	1	0
7. The instructor's command of spoken English (or the language used in the course)	5	4	3	2	1	0
8. The instructor's use of examples or illustrations to clarify course material	5	4	3	2	1	0
9. The instructor's use of challenging questions or problems	5	4	3	2	1	0
10. The instructor's enthusiasm for the course material	5	4	3	2	1	0
C. Faculty/Student Interaction						
11. The instructor's helpfulness and responsiveness to students	5	4	3	2	1	0
12. The instructor's respect for students	5	4	3	2	1	0
13. The instructor's concern for student progress	5	4	3	2	1	0
14. The availability of extra help for this class (taking into account the size of the class)	5	4	3	2	1	0
15. The instructor's willingness to listen to student questions and opinions	5	4	3	2	1	0
D. Assignments, Exams, and Grading						
16. The information given to students about how they would be graded	5	4	3	2	1	0
17. The clarity of exam questions	5	4	3	2	1	0
18. The exams' coverage of important aspects of the course	5	4	3	2	1	0
19. The instructor's comments on assignments and exams	5	4	3	2	1	0
20. The overall quality of the textbook(s)	5	4	3	2	1	0
21. The helpfulness of assignments in understanding course material	5	4	3	2	1	0

	Very Effective	Effective	Moderately Effective	Somewhat Ineffective	Ineffective	Not used
E. Supplementary Instructional Methods						
Many different teaching practices can be used during a course. In this section (E), ***rate only those practices that the instructor included*** *as part of this course.* **Rate the effectiveness of each practice used as it contributed to your learning.**						
22. Problems or questions presented by the instructor for small group discussions	5	4	3	2	1	0
23. Term paper(s) or project(s)	5	4	3	2	1	0
24. Laboratory exercises for understanding important course concepts	5	4	3	2	1	0
25. Assigned projects in which students worked together	5	4	3	2	1	0
26. Case studies, simulations, or role playing	5	4	3	2	1	0
27. Course journals or logs required of students	5	4	3	2	1	0
28. Instructor's use of computers as aids in instruction	5	4	3	2	1	0

Questionnaire continued on the other side.

74207-12402 • TF98C500 • Printed in U.S.A.
MH06025 Q1057-0 1

For the next **two** sections (F and G), use the rating scale below. Mark the one response for each statement that is closest to your view. Fill in the appropriate circle to the right of each statement.

(5) **Much More** than most courses
(4) **More Than** most courses
(3) About the **Same** as others
(2) **Less** than most courses
(1) **Much Less** than most courses
(0) **Not Applicable**, not used in the course, or you don't know. In short, the statement does not apply to the course or instructor.

	Much More than most courses	More Than most courses	About the Same as others	Less than most courses	Much Less than most courses	Not Applicable
F. Course Outcomes						
29. My learning increased in this course	5	4	3	2	1	0
30. I made progress toward achieving course objectives	5	4	3	2	1	0
31. My interest in the subject area has increased	5	4	3	2	1	0
32. This course helped me to think independently about the subject matter	5	4	3	2	1	0
33. This course actively involved me in what I was learning	5	4	3	2	1	0
G. Student Effort and Involvement						
34. I studied and put effort into the course	5	4	3	2	1	0
35. I was prepared for each class [writing and reading assignments]	5	4	3	2	1	0
36. I was challenged by this course	5	4	3	2	1	0

H. Course Difficulty, Work Load, and Pace

37. For my preparation and ability, the level of difficulty of this course was:
(5) Very difficult (4) Somewhat difficult (3) About right (2) Somewhat elementary (1) Very elementary

38. The work load for this course in relation to other courses of equal credit was:
(5) Much heavier (4) Heavier (3) About the same (2) Lighter (1) Much lighter

39. For me, the pace at which the instructor covered the material during the term was:
(5) Very fast (4) Somewhat fast (3) Just about right (2) Somewhat slow (1) Very slow

I. Overall Evaluation

40. Rate the quality of instruction in this course as it contributed to your learning (try to set aside your feelings about the course content):
(5) Very effective (4) Effective (3) Moderately effective (2) Somewhat ineffective (1) Ineffective

J. Student Information

41. Which one of the following best describes this course for you?
(1) A major/minor requirement (2) A college requirement (3) An elective (4) Other

42. What is your class level?
(1) Freshman/1st year (2) Sophomore/2nd year (3) Junior/3rd year (4) Senior/4th year (5) Graduate (6) Other

43. Do you communicate better in English or in another language?
(1) Better in English (2) Better in another language (3) Equally well in English and another language

44. Sex (1) Female (2) Male

45. What grade do you expect to receive in this course?
(1) A (2) A- (3) B+ (4) B (5) B- (6) C (7) Below C

K. Supplementary Questions If the instructor provided supplementary questions and response options, mark your answers in this section. Mark only one response for each question.

46.	5 4 3 2 1 NA	48.	5 4 3 2 1 NA	50.	5 4 3 2 1 NA	52.	5 4 3 2 1 NA	54.	5 4 3 2 1 NA
47.	5 4 3 2 1 NA	49.	5 4 3 2 1 NA	51.	5 4 3 2 1 NA	53.	5 4 3 2 1 NA	55.	5 4 3 2 1 NA

L. Student Comments If you would like to make additional comments about the course or instruction, use a separate sheet of paper. You might elaborate on the particular aspects you liked most as well as those you liked least. Also, how can the course or the way it was taught be improved? An additional form may be provided for your comments. **Please give these comments to the instructor.**

401651

If you have any comments about this questionnaire, please send them to:
Student Instructional Report II, Educational Testing Service, Princeton, NJ 08541-0001.

Additionally, Faculty are evaluated by peers and their Chair using the following two instruments, Peer Evaluation and Chair Evaluation.

PEER EVALUATION INSTRUMENT (Objective Format)	**Date Observed**
The objective of this instrument is to ascertain whether the teaching is categorized according to the teaching excellence section: Outstanding, Above Average, Average, or Poor.	
INSTRUCTIONS: Check (✓) each item as: **S**- Satisfactory or **NI** – Needs Improvement. Items which are not applicable to the lesson presented should be checked as **NA**- Not Applicable.	
NAME OF FACULTY MEMBER (last, first, middle initial)	Time Observation Started: Time Observation Completed:
NAME OF EVALUATOR (last, first, middle initial)	Course Number_____ Regular Class Time: Lecture ( ) Lab ( )

ITEMS	**RATING**			**COMMENTS**
	S	NI	NA	
A. ORGANIZATION/PREPARATION/CLASS MANAGEMENT				
1. Class starts promptly				
2. Teaching materials and equipment prepared for class				
3. Goals for lesson clearly stated; objective and sequence are consistent with approved department outline				
4. Time managed well				
5. Proper control of class				
6. Main points reviewed at conclusion				
B. COMMUNICATION SKILLS				
1. Proper use of the language				
2. Easily understood				
C. SUBJECT MATTER KNOWLEDGE				
1. Excellent grasp of subject matter				
2. Subject matter up-to-date				
3. Material detailed				
4. Material presented was relevant and timely				
D. FLEXIBILITY IN APPROACHES TO TEACHING				
1. Stimulates interchange/exchange of ideas				
2. Develops high and consistent standards that can be achieved				
3. Creates an environment in which maximum learning can take place				
4. Student participation encouraged				
E. EVALUATION TECHNIQUES				
1. Questions phrased clearly and to the point				
2. Questions appropriate for the lesson				
3. Student's questions answered adequately				
4. Expands and discusses student responses				

HAIR EVALUATION INSTRUMENT (Objective Format)	**Date Observed**

he objective of this instrument is to ascertain whether the teaching is categorized according to the teaching excellence section: utstanding, Above Average, Average, or Poor.

NSTRUCTIONS: Check (✓) each item as: **S**- Satisfactory or **NI** – Needs Improvement. Items which are not applicable to the lesson presented should e checked as **NA**- Not Applicable.

AME OF FACULTY MEMBER (last, first, middle initial)	Time Observation Started: Time Observation Completed:
AME OF EVALUATOR (last, first, middle initial)	Course Number_____ Regular Class Time: Lecture ( ) Lab ( )

ITEMS	**RATING**			**COMMENTS**
	S	NI	NA	
. ORGANIZATION/PREPARATION/CLASS MANAGEMENT				
Class starts promptly				
Teaching materials and equipment prepared for class				
Goals for lesson clearly stated; objective and sequence are consistent with approved department outline				
Time managed well				
Proper control of class				
Main points reviewed at conclusion				
. COMMUNICATION SKILLS				
Proper use of the language				
Easily understood				
. SUBJECT MATTER KNOWLEDGE				
Excellent grasp of subject matter				
Subject matter up-to-date				
Material detailed				
Material presented was relevant and timely				
. FLEXIBILITY IN APPROACHES TO TEACHING				
Stimulates interchange/exchange of ideas				
Develops high and consistent standards that can be achieved				
Creates an environment in which maximum learning can take place				
Student participation encouraged				
. EVALUATION TECHNIQUES				
Questions phrased clearly and to the point				
Questions appropriate for the lesson				
Student's questions answered adequately				
Expands and discusses student responses				

6.5.6 Faculty Loads: Faculty teaching, advising, and service loads shall be comparable to the faculty in other professional program areas at the institution. Consideration shall be given in faculty teaching load assignments to high contact hours resulting from laboratory teaching assignments.

The Department Faculty follow the College of Technology and University strategies to establish fair and reasonable faculty-load assignments. Every effort is made to provide teaching, advising, and service loads that are comparable for all professional program areas at the institution.

6.6 Students

6.6.1 Admission and Retention Standards: Admission and retention standards shall be used to ensure that students enrolled are of high quality. These standards shall compare favorably with the institutional standards. Sources of information may include admission test scores, secondary school rankings, grade point averages, course syllabi, course examinations, written assignments, and oral presentations.

For the baccalaureate program in Electronics Technology, admission and retention standards equal, or exceed, the institutional admission standards. Sources of information include admission test scores, high school rankings, grade point averages, course syllabi, course examinations, written assignments, and oral presentations.

Admission requirements for the Department of Electronics and Computer Technology are the same as the University-level requirements. Freshmen applicants and transfers who have completed fewer than 24 transferable semester credit hours must submit scores for the SAT or ACT. Freshmen applicants are normally ranked in the upper 50 percent of their high school class. Students whose academic achievement is below this level are reviewed on an individual basis. Retention standards for the Department of Electronics and Computer Technology are the same as the University-level requirements. A student must maintain a 2.0 GPA.

6.6.2 Scholastic Success of Students: Students in Industrial Technology shall have scholastic success comparable to those in other professional curricula in the institution. Grading practices in Industrial Technology courses shall be comparable to other departments and/or programs in the institution.

Students in Electronics Technology have scholastic success comparable to those in other curricula at Indiana State University. Grading and evaluation practices in ECT courses are also comparable to other departments and/or programs in the institution. Current GPA and earned hours of characteristic ET students are shown below:

	Year	Major	GPA	Earned Hrs
1	GRD	Electronics & Computer Tech	3.333	9
2	GRD	Electronics & Computer Tech	3.667	18
3	GRD	Electronics & Computer Tech	3.9	9
4	GRD	Electronics & Computer Tech	3.643	21
5	GRD	Electronics & Computer Tech	2	6
6	GRD	Electronics & Computer Tech	4	6
7	GRD	Electronics & Computer Tech	4	9
8	GRD	Electronics & Computer Tech	3.1	9
9	GRD	Electronics & Computer Tech	3.5	24
10	GRD	Electronics & Computer Tech	3.1	9
11	GRD	Electronics & Computer Tech	3.875	12
12	JR1	Electronics Technology	2.631	65
13	SO1	Electronics Technology	3.053	41
14	SR2	Electronics Technology	3.147	109
15	SR2	Electronics Technology	3.378	114
16	SR2	Electronics Technology	3.191	115
17	SR2	Electronics Technology	2.294	110
18	SR1	Electronics Technology	3.471	101
19	SR1	Electronics Technology	0.75	100
20	JR1	Electronics Technology	4	65
21	SR2	Electronics Technology	3.786	114.5
22	SO1	Electronics Technology	2.018	45
23	JR2	Electronics Technology	3.45	91.5
24	FR1	Electronics Technology	2.07	10
25	SR1	Electronics Technology	3.238	101
26	JR2	Electronics Technology	3.814	85.4
27	SO1	Electronics Technology	3.93	43
28	SR2	Electronics Technology	3.453	110
29	FR1	Electronics Technology	3.615	13
30	JR1	Electronics Technology	1.99	77
31	FR1	Electronics Technology	1.818	14
32	JR2	Electronics Technology	3.583	93
33	SR1	Electronics Technology	3.608	95
34	FR1	Electronics Technology	2.677	13
35	SO2	Electronics Technology	3.379	49
36	JR1	Electronics Technology	2.606	68
37	SO1	Electronics Technology	2.042	44
38	JR1	Electronics Technology	2.15	65

6.6.3 Placement of Graduates: The initial placement, job titles, job descriptions, and salaries of graduates shall be consistent with the program(s) goals and objectives. Industry's reaction to graduates as employees must be favorable. Follow-up studies of graduates shall be conducted every two to five years. Summary statistics relating to follow-up studies of graduates shall be made available to the visiting team. These statistics shall include placement rates as well as salary levels of program graduates.

The initial placement, job titles, job descriptions, and salaries of graduates reflect program goals and objectives. Consistently the electronics graduates have been in the top tier for average salaries received of all ISU graduates. Supporting evidence can be found from the College of Technology Annual Reports, as well as from data supplied by the University's Placement Services Center.

6.6.4 Graduate Studies: If an objective of the program(s) is to prepare students for graduate studies, then the success of Industrial Technology graduates in graduate programs shall be tracked and confirmed.

Until 1985, there were three primary areas of emphasis that might be most appropriate for graduates with a major in Electronics Technology. Indiana State University's College of Technology offered a Master of Science in Industrial Professional Technology. The other two areas were Industrial Technology Education or Electrical Engineering. Although a number of program graduates pursue advanced degrees in engineering or education, most of those wishing to continue graduate study elected to enroll in the Masters Degree in Electronics and Computer Technology graduate program at ISU. A majority of these students were successful and exemplary at the graduate level.

For those selecting engineering or education, the baccalaureate program in Electronics Technology does not provide sufficient undergraduate preparation (e.g. educational methods, history, pedagogical strategies, etc., for the M. Ed. or advanced calculus, mathematics, design analysis, etc. for an M. S. in engineering). Much remediation or review of fundamentals would be necessary.

In 1985, the Department's proposal to offer a Master of Science in Electronics and Computer Technology was approved. Since then, a number of graduates from the Electronics Technology program have enrolled/completed curriculum requirements for earning the M. S. in ECT. A smaller number of those majoring in Electronics Technology continue their graduate study in other Technology programs.

6.6.5 Student Evaluation of Program(s): Evaluations of the Industrial Technology program(s) shall be made by its graduates on a regular basis (two to five years). Reactions and recommendations shall be considered in program revisions.

Surveys of alumni are conducted for evaluation. The instrument used for the investigation is included below:

Electronics Technology

Directions: The following items have been identified as competencies needed for successful functioning by professionals in Electronics Technology. Please read each statement carefully and numerically rate its importance using the validity or confidence scale shown below.

When marking your response, identify the corresponding question by filling in the appropriate circles in the computer scanner column. Please use only soft lead (No. 1 or 2) pencil.

Validity / Confidence Scale

	Great Importance – Essential that competency be acquired
	Considerable Importance – Not essential but of greater
	Moderate Importance – Desirable to acquire if time permits
	Little Importance – Nice to know but of little value
	No Importance – Competency not needed

1 Demonstrate the ability to develop a structured language (Such as C++) to resolve a technical problem

2 Apply methods of circuit analysis (independent versus dependent sources, mesh analysis, nodal analysis, bridge networks, delta to wye conversions, network theorems, superposition theorem Thevenin's Theorem, Norton's theorem, and maximum power transfer theorem) to analyze electrical circuits

3 Apply theories and principles of calculus to circuit analysis problems

4 Apply principles of design/analysis using circuit simulation software

5 Demonstrate knowledge of manufacturing processes and materials

6 Demonstrate the ability to organize and prepare a technical lab report

7 Demonstrate the ability to design and fabricate proper hydraulic/pneumatic systems

8 Apply principles of computer-aided design drafting

9 Lead a small group discussion or a conference to resolve technical problems

10 Lead a small group discussion or conference to resolve technical problems

11 Identify, Demonstrate, and Apply knowledge of organizational principles of industry

12 Identify, Demonstrate, and Apply knowledge of the principles of industrial supervision

13 Apply project/team development concepts for troubleshooting

14 Demonstrate the ability to apply digital logic techniques

15 Identify and apply theories of amplifier circuits

16 Identify and apply principles of electrical pulse circuits

17 Identify and apply theories of automation and instrumentation

18 Demonstrate the ability to recognize and apply device level automation and instrumentation

19 Identify and apply theories of Programmable Automation Controllers and control systems

20 Identify and apply theories of industrial current control systems

6.6.6 Student Enrollment: Enrollment shall be adequate in each program area to operate the program(s) efficiently and effectively. The level of available financial and facility resources shall be considered as a constraint on the maximum number of qualified students to be admitted to the program(s). Enrollment trends shall be tracked, and factors affecting enrollment patterns shall be identified and analyzed. Enrollment projections shall be made which relate closely to short and long-range goals, as well as financial and physical resource needs.

There are currently 44 majors enrolled in the Electronics BS program. Efforts are underway to increase enrollments through day long recruiting activities at high schools and active participation in the new Project Lead The Way program. The PLTW pre-

engineering/engineering technology program is being offered in over 3000 schools this coming year, including school districts in all 50 states. Indiana has the largest number of schools participating in the program with over 300 schools. In Indiana, Project Lead The Way courses are technology education course offerings as designated by the Indiana Department of Education. Project Lead The Way has developed a four-year sequence of technology education courses which, when combined with college preparatory mathematics and science courses in high school, introduces students to the scope, rigor, and discipline of engineering and engineering technology prior to entering college. The Project Lead The Way technology education curriculum addresses the educational needs of students planning to attend a two-year or four-year college leading to a career in engineering or engineering technology. New Admitted Freshman to Electronics as of January 12, 2010 for Fall 2010, number 24, a positive response to efforts.

6.6.7 Advisory and Counseling Services: Adequate and timely advising and counseling services shall be available for students.

Each faculty member is required to post office hours and maintain those hours. In addition, the faculty are to be available by appointment. Each semester, several days of advisement and registration are scheduled for students to be advised about necessary courses. Further efforts have been made by the College of Technology in the establishment of the Academic Student Services Office housing the Associate Dean, the COT Records staff, and two professional Advisors. This office helps assure students receive the highest level of Advisement and Counseling Services. Students are advised to carefully keep records on the Guide Sheet that shows their entire academic requirements.(See Standard 6.3.6 above). Students have continuous on-line access to the Degree Audit Report System (DARS) the most complete curriculum guide available to students through their personal MYISU “isuportal” access. It is especially convenient for transfers and students who switch majors. Students will have repeated exposure to DARS and are expected to understand the contents and all legends. Additionally, a Graduation Checklist is provided as seen below:

Graduation Checklist

____ Maintain a **minimum** GPA of 2.0 (2.5 in an Education program)

____ Satisfy all requirements of your major – listed on the Curriculum Guidesheet for your major and also in the ISU Undergraduate Catalog for the year you entered ISU.

____ Satisfy all General Education (Basic Studies and Liberal Studies) requirements. An outline of these requirements begins on approximately page 32 in the ISU Undergraduate Catalog.

____ Complete a minimum of 124 hours (excluding Math 010 or 011). If you meet all General Education and Major requirements but still have not completed 124 hours, your must take additional coursework.

____ At least 50 hours must come from 300-400 level courses.

____ As you approach completion, apply for graduation on MyISU. Click on the 'Student' tab, select 'Apply for Graduation' under My ISU Quicklinks, and follow the prompts. If you are receiving more than one degree (AS and BS), contact the Registrar's Office at 812-237-2489 in order to apply. If possible, apply for graduation at least one semester prior to graduating. You cannot graduate without applying.

ISU students can graduate in May, August, or December. Commencement ceremonies are held in May and December. August graduates participate in the May ceremony.

Additional For Transfer Students:

____ A maximum of 94 transfer hours can be used toward a Bachelor degree. A maximum of 64 transfer hours can be used toward an Associate degree. Courses taken at other institutions must have a grade of C or higher in order to transfer.

____ Of the last 15 hours preceding graduation, no more than 5 can be transfer hours.

____ To receive a Bachelor degree, you must complete at least 30 hours of Residence Credit. Residence Credit is earned from courses taken at the ISU campus, ISU Distance courses, or ICN courses. Hours granted through Credit By Exam, Credit for Prior Learning, or credit for Professional Occupational Experience do **not** count toward the Residence Credit requirement.

6.6.8 Ethical Practices: Ethical practices shall be fostered, including reasonable student refund policies and nondiscriminatory practices in admissions and student employment.

An active Affirmative Action Office is located at Indiana State University. Mandatory attendance of all administrators, down through the Chair-level, for annual workshops on harassment, racism. and other unfair practices is a part of University policy.

6.7 Administration

6.7.1 Program Administration: Programs in Industrial Technology are expected to have an identifiable, qualified individual with direct responsibility for program coordination and curriculum development. This individual should be a full-time employee of the institution.

The Chair of the Department is a full-time employee of Indiana State University; and is an identifiable, qualified individual with direct responsibility for program coordination and curriculum development.

6.7.2 Administrative Leadership: Individuals assigned to administer Industrial Technology programs must demonstrate effective leadership and a high level of support for Industrial Technology.

The Dean of the COT and the Associate Dean, who is the coordinator for all accreditation efforts, provides his office to help furnish data on faculty, enrollment, and transfer students. Both fully support the activities of the Faculty and encourage innovation and forward thinking. To demonstrate support, the COT and department provided both personnel (office assistants and student workers), and consulting (an expert in accreditation was invited to campus for consultation) support. The department chair, an MET faculty, is personally involved in the curriculum and direction of the major.

Unique competencies of each faculty in the Department have been recognized and effectively utilized by the Chair. Perhaps the greatest demonstration of effective leadership is his effort to encourage and maximize the potential contribution from each professor, and still maintain a camaraderie, morale and esprit-de-corps within the department--an attitude, often difficult to cultivate.

6.7.3 Administrative Support: There must be appropriate support for Industrial Technology from the personnel holding leadership positions in the departments and colleges where Industrial Technology is administratively located.

The Department of Electronics, Computer, and Mechanical Engineering Technology has received approximately $12,000 each year for equipment and supplies. This amount is a "fair share' of what is allocated to the School of Technology by the University. In addition, each faculty has funds available for professional travel.

6.8 Facilities and Equipment

6.8.1 Adequacy of Facilities and Equipment: Physical facilities and equipment, which are suitable to serve the goals and objectives of the program(s), shall be available for each program and option. Where facilities and equipment appear to be minimal

to support a quality program(s), comparisons with support levels for other professional programs at the institution will be made by the visiting team.

Physical facilities and equipment are suitable to serve the goals and objectives of the program.

Building The ET program together with ECMET Department is housed in the John T. Myers Technology Center, which is also the home for the Collage of Technology. The building was erected in 1997 and has received regular hardware upgrades to incorporate state-of-the-art instructional facilities as well as student work and lounge areas.

ET Office Space The ECEMET Department office complex in located on the third floor of Myers Center. Most of the classrooms on this floor are used by the department and ET program. Research lab and graduate assistants office also take some space on the same floor. The central location of these facilities offers students the convenience to further enhance encounters with faculty, fellow students and graduate assistants.

All ET faculty have their own offices in Suite 301, close to the class rooms, labs, and meeting rooms. It is standard for faculty to have Dell PC desktop computers and/or IBM - Lenovo T60 laptop computers. The Suite also has office space for undergraduate/graduate student workers and adjunct faculty.

Auditorium and Meeting Rooms The College of Technology has an auditorium or theatre-like classroom that seats 100 students. There is also an atrium to hold large social gatherings. The ECMET Department has one meeting/conference room. In addition, the College of Technology has three meeting rooms and two breakout rooms.

Research Centers The Myers Facility houses three Centers: the Indiana Packaging Research and Development Center (4000 sq ft), Center for Systems Modeling and Simulation (1000 sq ft, with MATLAB, IGrip, Rockwell Arena, etc.), and the Center for Automation and System Integration.

Classrooms ECMET classrooms also function as laboratories, which allows students to continue on lab experiments in the same room when the lecture session of the class is complete. All classrooms are equipped with PC's with network access and educational software required for courses taught in the room, and the latest teaching apparatus: the audio/visual cabinet with master control, VCR/DVD player and audio amp. Most of the rooms have installed overhead data projector, and an automated projector screen. Each room also has multiple equipment/documentation cabinets to store lab equipment and manuals, e.g., power supplies, oscilloscopes, multi-meters, function generator etc.

Room physical dimension is usually large enough to accommodate up to 24 seats, which is the normal cap for class size. The layout is designed to facilitate student interaction and collaboration during laboratory exercises.

Rooms 307, 308, 311, 312, 315, and 316 are the primary teaching rooms for the ET courses. These rooms are fully equipped with the specialized equipment to fulfill the needs of the courses in complementing and enforcing the materials presented in lecture with appropriate laboratory exercises. Inn class computers have the necessary software for each subject installed.

Room 304 is one of the 17 new sympodium classrooms across ISU campus. The Smart Sympodium in this room operates identically to a Smart Board. The system allows each input switch from desktop, laptop, and other visual sources. Writing on the touch screen can also be saved through special software.

Laboratories, Equipments and Tools TC 108, the Computer Integrated Manufacturing (CIM) laboratory (3600 sq ft) has been developed to represent modern automation. The CIM lab has seven Adept robots, some with vision systems, a Fanuc robot, an automated guided vehicle (AGV), an automated storage and retrieval system (ASRS), and an automated conveyor system. All of these systems have been integrated so they function as an automated factory.

In addition, the College has a lab, TC 311, dedicated to the study of programmable logic controllers (PLC) (2400 sq ft), a wet process control lab, TC 312, (2400 sq ft) that helps students learn about automation used in the chemical and plastics industries, and a Mitsubishi robot lab, TC 316, (2000 sq ft). The Mitsubishi lab has eight robots and I/O systems. All of these systems are computer operated and can be migrated for web delivery.

Besides commonly used software such as Microsoft Office Suite, lab specific PC's have the necessary software including MultiSim, LabView, RSLOGIX, RSLINX, and Microsoft Visual Studio, installed.

These laboratories have the power requirements, grounding, and modern resources necessary to sustain a technical program. Where required each room has a full array of single and three-phase circuits.

Laboratories

The following is a concise list of the available laboratories:

Room Number	Specialty	Approximate Stations
TC 304	Circuit Analysis Learning Lab	12
TC 305	IT Laboratory	12
TC 306	Advanced Computer Lab	12
TC 307	Transistor Laboratory	12
TC 308	Solid State Laboratory	12
TC 311	Power and PLC Laboratory	10
TC 312	Wet Process Laboratory	10
TC 316	Robotics Laboratory	10

Offices

Each faculty is provided an office. The faculty offices are spacious accommodations giving the feeling of freedom and adaptability. Each office has connections for telephone and Internet access. The secretary's office is situated in such a manner to provide maximum access and ease of utilization to all faculty and students. All offices have been situated in a single complex with a Department Conference Room to further make access to faculty and students as efficient as possible.

Location of personnel is as follows:

Name	Title	Room
Ashby, Joe	Assistant Professor	TC 301E
Beach, David	Professor	TC 301K
Clyburn, William	Associate Professor	TC 301L
Cockrell, Gerald	Professor	TC 301F
Croft, William	Associate Professor	TC 301C
Li, Xialong	Assistant Professor	TC 301J
Lin, Yuetong	Assistant Professor	TC 301H
Mitchell, Ann	Administrative Assistant	TC 301A
Malooley, David	Associate Professor	TC 301D
Schwibbe, Tim	College Staff Computer Systems Manager/Technologist	TC 310A

Auxiliary Rooms

In addition to the offices and classroom/laboratories, the Department has a Graduate Research Office--TC 301N, a Neural Network lab--TC 317, and duplication facilities--TC 301A.

Equipment

The Department of Electronics and Computer Technology has had an ongoing equipment modernization program since 1982. Much new equipment has been purchased and is in use. Specialized oscilloscopes, power supplies, computer systems, trainers and instrumentation have been purchased and developed as needed to remain current in offering students the hands-on experience with "real world" equipment whenever possible.

Major equipment includes state-of-the-art programmable logic controllers, process control equipment, robots, and computers throughout the laboratories.

6.8.2 Support for Facilities and Equipment: Facility and equipment needs shall be reflected in the long range goals and objectives for the program(s) and options(s), and sources of potential funding shall be identified.

With implementation of the University's Master Plan for campus capital improvements and continued upgrading of the Advanced Technology Center at Indiana State University, the administration is assisting in the acquisition of appropriate facilities and equipment for the program.

As seen in Standard 6.8.1 above, there is adequate facilities and equipment to facilitate a high level of educational standards and experiences for the ET students.

Our long-range equipment needs are:

a. Continual upgrading/replacement of equipment
b. Additional process control equipment
c. Electronic circuit simulation software for student use
d. Laptop-computer stations.

Funding must continue to come from the University, industrial donations/educational discounts.

Every effort is being made to remain abreast of equipment needs; additional equipment is being purchased for the Advanced Technology Center.

We believe that these needs reflect the long-range goals and objectives of the program.

6.8.3 Appropriateness of Equipment: Equipment shall be appropriate to reflect contemporary industry. Student use of equipment reflecting current technology practices shall be evident.

The equipment invested by the program represents a cross section of the types and brands graduates will encounter on the job. The present equipment and an ongoing equipment modernization has insured that the students' laboratory experiences are relevant and up-to-date, reflecting contemporary industrial needs. Department faculty have been actively involved in acquiring new industrial equipment donations, contributions, and deep educational discounts. Examples of donations or contributions include robots, computer equipment, PLC software, variable frequency ac drive control software, Device Net equipment and software, additional process control equipment, power equipment, and digital training equipment. Examples of companies from which contributions or donations have been received are: Rockwell International, Allen Bradley, Siemens, Eli Lilly, National Instruments, Microbot, TRW, Adept Robot, and Intel. Every effort is made to use actual off-the-shelf equipment. PLCs used are SLC-500 and Micro-logix controllers from Rockwell/Allen-Bradley, level sensors, flow meters, proportional valves, and other sensors are Endress+Hauser industrial units, and robots are Mitsubishi commercial units.

6.9 Computer Systems

6.9.1 Availability of Computer Systems: Appropriate and current computer systems and software shall be available to both students and faculty. These systems must cover appropriate functions and applications in each program area. These systems may be on or off-site, as long as the systems are accessible to students and faculty.

Indiana State University is a lap-top computer institution meaning that all incoming Freshman students must have a laptop computer meeting minimum standards. Additionally, there are open computer labs throughout campus and most of the Electronics Laboratories have lab-specific computers with specialized software. Therefore, more than adequate computer systems are available to students' functions and faculty to cover applications in the Electronics Technology program. Additionally, ISU supports 85 technology enhanced classrooms, 15 public labs and 45 discipline specific computer labs, and 5 distance learning classrooms. Campus infrastructure currently supports over 100 servers and high performance computing facilities. The campus has

become a notebook institution beginning with freshmen in Fall 2007. The campus is served by an extensive fiber optic cable system, and uses a gigabit backbone to deliver data and interactive video connections to every building. Wireless network access is available in all academic areas. High speed connection to both the commercial Internet and Internet2 is provided for faculty and student use. Student computing needs are served by 450 microcomputers in general use computer clusters, and 600 microcomputers in special use clusters.

6.9.2 Utilization of Computer Systems: Evidence shall be available which indicates that students and faculty are making significant use of computer systems related to program curricula.

Visitation and observation of classroom activity will provide sufficient evidence to indicate that faculty and students are making adequate and appropriate use of computer systems

Faculty Computer Usage:

Name	Type of Personal Computer
Ashby, Joe	Dell Optiplex
Beach. David P.	Macintosh
Clyburn, William	Dell Optiplex
Croft, William E.	Dell Optiplex, Macintosh
Cockrell, Gerald W.	Dell Optiplex
Malooley, David J.	Dell Optiplex, Macintosh

Student Computer Usage/Laboratories:

Development System Laboratory (Intel Equipment) – Six IBM AT 486 DX 100 MHz, and twelve Dell Dell Optiplex computers.

Process Control Lab – Five Dell Dell Optiplex computers, and IBM AT 486 DX 100 MHz (AT Compatible).

Computer Laboratory – 24 Dell Optiplex computers.

Power and PLC Lab – Eight Optiplex computers.

All other laboratories – Dell Optiplex computers

Software Used by Students – Multi-Sim, Breadboard (circuit analysis) program, Electronics Workbench are on all laboratory computers used in all ECT classes. LabView software is used by students to develop circuits and process control simulations. Additionally, students take at least one computer science course and a MET Computer Graphics course.

6.10 Financial Resources

6.10.1 Financial Support: The budget for the Industrial Technology program(s) shall be adequate to support program objectives. When judging sufficiency, the visiting team shall make comparisons with the support levels given to other professional programs at the institution.

The Budget for the Program is parsed through the Dean of the College. Additionally, the Department has a foundation fund, supported by the alumni, and faculty. This allows the Department to sponsor the annual advisory board meeting, and provides limited support for faculty development.

6.10.2 External Financial Support: There shall be evidence of external support for the program(s) in Industrial Technology. However, this external support shall be treated as supplementary support and is to be used to achieve and maintain a high level of program excellence. This external support shall not be used to displace funding support normally provided by the institution.

The Department has received funds from external sources totaling approximately $67,000 this year including a $566,000 three year NSF Grant, $1800 in Promising Scholar Grants, $17,000 in Work One grants. Additionally, several thousand dollars are received as a result of Distance Education classes offered by the Department.

Notification of NSF Approval of Additional Funding Support

Award No. DUE - 0703112
Amendment No. 003
Release Date: 04/07/2009
Released By: Herbert H. Richtol
Amount: $181,683
New Expiration Date: 07/31/2010

As authorized by the original award, the National Science Foundation hereby releases $181,683 for additional support of the award referenced above. The award, with this amendment, now totals $483,650 and will expire on 07/31/2010.

The attached budget indicates the amounts, by categories, on which NSF has based its continued support.

6.11 Library and Information Services

6.11.1 Library and Internet Resources: The administrative unit containing the Industrial Technology program(s) and/or the institutional library shall have access to technology resources, literature, and reference materials adequate to meet the curriculum and research needs of students and faculty.

The Department maintains some technical reference material stored in the Conference Room. The Indiana State University Cunningham Memorial Library (CML) serves as the main library and is supplemented by the Science Library, the Career Center and the Women's Resource Center. The total ISU Library collection numbers in excess of 1.9 million items and includes: books, journals, government documents, microforms, video recordings, filmstrips and computer software. The Library collection is accessible through the Library User Information System (LUIS) on-line computerized data search, which also lists holdings in the Rose Hulman Institute of Technology as well as Saint Mary-of-the Woods College. Additional library holdings are accessible from Vincennes University, University of Southern Indiana, and Purdue University through LUIS terminals.

The Cunningham Memorial Library has more than 24,000 technology-related items. Within the general classification of technology, the CML has about 1,372 items in the areas of: electronics, computer engineering/technology and computer science.

The Cunningham Memorial Library offers services for free database searches, instruction for classes and compact disk (CD-ROM) searches.

The College of Technology Library Representative recommends the purchase of books, journals, recordings and computer software to be housed in the CML.

6.11.2 Utilization of Library and Internet Resources: Evidence shall be available which indicates that students and faculty are making adequate and appropriate use of library and reference resources.

A bibliography of reference books, journals and documents is available for each course offered in the Department through the CML. Technical information for student laboratory reports are supplemented from the CML. Each faculty is encouraged to utilize available Library and Internet resources. ET Faculty assign readings available in the Library and utilize online technical documentation to support or supplement texts required in their classes. Student research for classroom presentations or laboratory exercises requires regular use of library and/or Internet based resources. Students are required to document for their presentation or laboratory reports utilization of library or web-based resources.

6.12 Support Personnel

Support Personnel: Personnel such as teaching assistants, student workers, office professionals, and laboratory technicians shall be adequate to support program objectives.

The Department has one administrative assistant. Their time is informally assigned to approximately 75% for undergraduate-related work and 25% for graduate-related work.

Student workers are hired as needed to assist in the office and laboratories.

Additionally, there is an electronics technologist assigned to the College of Technology, whose office is located within the Department.

Graduate Assistants are assigned to individual Faculty for use as teaching aides or laboratory assistants.

6.13 Placement Services

6.13.1 Placement Services: Appropriate services shall be available to assist with the placement of program graduates. Placement of graduates shall be tracked and the effectiveness of placement services shall be evaluated by the administrative unit containing the Industrial Technology program(s).

The Career Placement Center at Indiana State University is truly one of the outstanding in the nation. It provides many contemporary and effective services to assist with the placement of program graduates. ISU Career Center offers services to prepare, educate and assist ISU students throughout their career development, to prepare them for a competitive work environment, and to proactively develop and maintain effective relationships among students, employers and other relevant constituencies. Career Center is responsible for hosting two career fairs on campus. Other services of benefit to student

employment include a) MyPlan: a Career Center online service to help students plan their career; b) CAREERLINK: a national recruiting network and suite of web based recruiting and career services automation tools serving the needs of colleges, employers and job candidates; c) Networking etiquette workshop: workshop that lets students learn about and practice important networking and dining skills including conversations; interviewing tips; proper dress etc; d) Speed interview review workshop: workshop that lets students practice interviewing skills in group setting alongside their peers.

6.13.2 Cooperative Education/Internship: If cooperative education or internship is either a required or an elective part of the program, then appropriate services shall be provided to assist with the placement and supervision of students.

Cooperative Education is an elective part of the program; the Career Placement Center provides appropriate services to assist with the placement and supervision of participating students. The ECMET Department has established long working relations with numerous industry partners who are willing to offer part-time or intern positions that require students to apply classroom experience to solve field problems.

6.14 Industrial Advisory Committee(s)

6.14.1 Program Advisory Committee(s): An industrial advisory committee shall assist in the validation of program content. If more than one program of study or program option is available, then appropriately qualified industrial representatives shall be added to the committee or more than one committee shall be maintained. Policies shall be presented to indicate the: (a) procedures used in selecting members, (b) length of appointment, (c) organization of the committee, (d) committee responsibilities, (e) frequency of meetings, and (f) methods of conducting business.

Throughout the history of the Electronics Program, the Department has had an active program industrial advisory board. Many members of the board are department alumni, and the department continues to invite graduates who are willing to help the programs improve their education objectives and program outcomes to join the board. ET faculty have established good working relations with the board members. Over the years the board meetings have proven to be a valuable venue to review program curricula and provide advisement on current and future needs of the technical fields in which graduates are employed. The membership of the current Industrial Advisory Board is as follows:

2009 Industrial Advisory Board - Electronics and Computer Technology

David Adler
59 Lakeshore Circle
Brownsburg, IN 46112-1733
317-852-4636
davidadler@comcast.net

John Brasker
Lilly Corporate Company DC4515
Indianapolis, IN 46285
317-276-7905
JDB@lilly.com

Brian Bridgewater
Lilly Corporate Center DC3511
Indianapolis, IN 46285
317-276-7145
bbridgeh2o@lilly.com

J. R. Musselman
Software Engineering Manager

Wright Industries
1520 Elm Hill Pike
Nashville, TN 37210
615-361-4111, ext. 3127

Richard Roop
Donaldson Capital Management, LLC
20 Northwest First Street
Fifth Floor
Evansville, IN 47708
812-421-3211 or 800-321-7442
rroop@dcmol.com

Dana Nakanishi
Rockwell Automation
3750 Priority Way South Drive, Suite 100
Indianapolis, IN 46240
317-571-6612
ddnakanishi@ra.rockwell.com

John Watler
Process Development & Fabrication, Inc.
P.O. Box 493
Brazil, IN 47834
812-443-6000
jwatler@pdfcontrols.com

jr.musselman@wrightind.com

6.14.2 Advisory Committee Meetings: The industrial advisory committee(s) shall meet at least once each year, and minutes shall be kept of these meetings showing agenda items, actions taken, and recommendations made.

Below are the Minutes of the Industrial Advisory Board Meetings:

Indiana State University
Department of Electronics and Computer Technology
College of Technology

Advisory Board Meeting
November 24, 2009
Minutes

Present:
Advisory Board Members: Mr. David Adler, Mr. John Brasker, Mr. Brian Bridgewater (by teleconference from Ireland), Mr. J. R. Musselman (by teleconference from Nashville, TN), Ms. Dana Nakanishi, and Mr. John Watler.
ECT Department Faculty: Dr. Joe Ashby, Dr. David Beach, Dr. William Clyburn, Dr. Gerald Cockrell, Dr. William Croft, Dr. Xiaolong Li, Dr. Yuetong Lin, Mr. David Malooley, and Dr. Ming Zhou
Guest: Dr. Brad Sims

The annual Industrial Advisory Board Meeting for the Electronics and Computer Technology Department was held November 24, 2009 on the campus of Indiana State University, TC 314. The meeting came to order at 9:00 a.m.

Opening remarks were made by Dr. Ming Zhou. He outlined some of the challenges facing our programs, such as enrollment concerns, financial constraints, and competition from other institutions. He asked the board for their help with efforts to continue improvements to our programs and with issues and requirements regarding accreditation.

Dean's Remarks. Dean Sims welcomed members of the advisory board and thanked them for their participation and efforts to improve programs in the College of Technology. He said that priorities within the COT are boosting enrollment and increasing outside funding.

Prof. Malooley thanked the advisory board for their participation in this meeting on such short notice. He said that we are currently in the midst of three accreditations: North Central Association (University), ATMAE, and TAC-ABET. He gave an overview of the current curriculum, and asked whether board members think that courses currently being offered are appropriate, or if there are others that should be added. What direction do we need to go to ensure that our students are successful?

Electronics Technology.

Cockrell: Do we still need to be doing device level courses?
Musselman: No.
Adler: Students need to know the basics even if they don't actually use it.
Watler: Agreed that you need to have an understanding.
Musselman: Suggested combining ECT 231 and ECT 232 into one course.
Watler: Agreed that courses could be compressed or combined.
Ashby: What are emerging technologies that should be included in the curriculum?
Musselman: Anything about I.P.
Clyburn: How about communications?
Watler: Students should know how to interface software & hardware.
Malooley: What about Visual Basic?
Watler: Said that he deals with that every day.
Adler: Students need to know about embedded microcontrollers
Sims: Suggested adding more soft skills in addition to technical skills—negotiating,
Selling, and writing. Hopefully our students want to be managers.
Dana: Students are doing Power Point presentations in elementary schools now.
Cockrell: We try to produce problem solvers.
Bridgewater: Asked if surveys to recent graduates are being done?
Adler: How do we keep current with hardware that is obsolete in three years?
Clyburn: If you understand basic fundamental concepts, you have an education and
have the ability to learn new things.
Adler: There is a perception in industry that academia is teaching technologies that are

dated. He said he doesn't have the answer, but just stating the problem.
Musselman: What type of people are we trying to develop?

Prof. Malooley asked the advisory board members to create a graduate profile for each of the three programs and get them back to us within the next 3 weeks. The ECT faculty will then see how we can mesh this into our curriculum. The hope is with this information in hand to be better equipped to have three well designed programs.

Computer Engineering Technology.
Dr. Lin thanked the advisory board members for their response to his recent survey. He also outlined deficiencies found in the CET program by the TAC-ABET team.

The team did not see enough involvement by the advisory board.
Periodic surveys are needed.
More meetings – at least one meeting per semester
Board members assist with co-ops.
Developing program educational objectives.
Must define educational objectives in consultation with advisory board.
Continuous improvement must be shown.
Capstone course or integrating experience needs to be implemented into curriculum.

Prof. Malooley said that we are going to need to know more from the board members, and have at least two sit down meetings per year. Also, we will be more frequently bouncing ideas off them throughout the year. He asked the board if they are willing to increase their participation, and respond to frequent communications. We are being required by our accrediting agencies, as well as increasing our commitment to them, as employers, by raising our level of students we provide to industry.

Bridgewater: Can we sit in on senior projects as a way to help critique the program?
Musselman: Invited us to bring our students to his company for co-ops. He also Challenged all advisory board members to become more involved and more productive.

Watler: He said he is willing to commit more time.
Cockrell: He said he would like to see the board create the agenda for our meetings.
Adler: Culminating experience is important not only for accreditation, but also to Show employers what the student has or can accomplish. This type of capstone course can make this school even better.
Musselman: Described his experience as a member of the advisory board for Vanderbilt

Engineering School (Nashville, TN) and being involved with students and
guiding them in a two-semester group co-op course.
Lin: Do we need to add a capstone in the curriculum, or take one 3-hour block out and
Convert it to a capstone experience? How do we approach this?
Bridgewater: Due to the rising cost of education, he does not agree with adding more
hours. He suggested re-arranging the curriculum to add the capstone.
Watler: We all agree that a capstone course needs to be added, however it may be implemented.

VOTE: 6-0-0 to add a Capstone or culminating experience to the curriculum.

Malooley: Should the program name be changed from Electronics Technology to Electronics Engineering Technology and move to TAC-ABET accreditation?
There was discussion regarding the marketing aspect and employer recognition.
Motion (Musselman/Watler), **VOTE: 6-0-0.**

There was general agreement by Mr. Brasker, Ms. Nakanishi, and Mr. Watler that the main reason for favoring the name change is program marketability and employer marketability/name recognition. Mr. Bridgewater said that the Engineering title is also more recognized internationally.

VOTE: 6-0-0 to seek TAC-ABET accreditation.

Electronics Technology Questionnaire. Prof. Malooley said that the questionnaire identifies 21 areas that make up the program and asks graduates to rate them. He asked advisory board members to take a look at the questionnaire and let us know if any changes should be made to the form.
Brasker: #10 and #11 are duplicates
Croft: Instead of C++ , he would prefer "high level structured language"
Malooley: Asked if the board has heard of a program called "Python," and should we discontinue the requirement of Visual Basic? The general consensus was no, Visual Basic should stay.
Croft: Change #18 to theories of amplification circuits.
Dana (and Musselman agreed): change PLC to automation controllers and instrumentation.

Employee Information Form.
Musselman, Brasker, and Watler: That subject is an "untouchable" one for them as employers. They are not allowed to talk about their employees to anyone.

NSF Grant.

Dr. Cockrell mentioned that he and Dr. Ashby are working on a NSF and gave disks to advisory board members containing examples of the work that is being done, presentations, etc.

The meeting adjourned at 12:00 Noon and was followed by a luncheon at Generations Restaurant.

Indiana State University
Department of Electronics and Computer Technology
College of Technology

Advisory Board Meeting
April 11, 2008
Minutes

Present:

Advisory Board Members: Mr. John Brasker, Mr. Richard Roop, and Mr. John Watler
ECT Department Faculty: Mr. Joe Ashby, Dr. David Beach, Dr. William Clyburn, Dr. William Croft, Dr. Nicholas Farha, Mr. Richard Jinbo, Dr. Yuetong Lin, Mr. David Malooley, and Dr. Ming Zhou
Guest: Dr. Todd Jochem (by teleconference)

The annual Industrial Advisory Board Meeting for the Electronics and Computer Technology Department was held April 11, 2008 on the campus of Indiana State University, TC 314. The meeting came to order at 9:45 a.m. Opening remarks were made by Dr. William Clyburn. He explained the reorganization that has taken place within the College of Technology and what programs are now included in the new ECMET Department. He talked about the challenges facing us as well as opportunities.

Dean's Remarks. Dean Foster told the advisory board how important their input is to our department. He reported that graduate enrollment is growing, undergraduate enrollment is declining. He mentioned that a new faculty member has been recommended by the department for hire (Dr. Xiaolong Li). He also reported that a TAC-ABET consultant will be visiting on April 23, 2008 to explore the possibility of accreditation. Dean Foster also talked about the

Automation and Control Engineering Technology (formerly CIM) major that was recently moved to this Department.

Comments, Concerns, Etc. from the Advisory Board members:

Brasker: How are we dealing with increased pressure because of legislature changing the status of Vincennes University and IVY Tech.

Roop: His son recently graduated from Wabash College. He was amazed at their marketing success. He asked if money has been allocated for recruitment with high school counselors, etc. Dean Foster answered that Prof. Ashby is certified with the Project Lead the Way Program. Participating schools get $450/student. Those students come to us with 15 college credit hours and technology experience. ISU is reaching out to these students.

Dean Foster: IVY Tech has the same course content as the first two years of our programs, same accreditation, but it 40% cheaper for students.

Roop: Suggested that a market positioning statement is needed. Also suggested that we should use our alumni database for recruitment. R.O.I. (Return on Investment) should be stressed.

Jochem: Campus activities are much richer at ISU than IVY Tech or Vincennes University. He suggested that we find out what salaries their graduates are getting as compared to ours.

Jochem: Left ISU in 1990 (graduated 1996 with a Ph.D. in Robotics from Carnegie Mellon). He helped develop lane departure (drowsy driver) warning system for large trucks.

Brasker: 1981 ISU graduate, and is a team leader at Eli Lilly in insulin manufacturing facility.

Roop: 1980 Murray State EET graduate, received MBA at ISU. He began working in portfolio investments in 2001.

Watler: 1994 ISU graduate (M.S.)

Updates by Faculty on Curriculum.

Electronics Technology	Prof. Malooley
Computer Engineering Technology	Dr. Lin
Information Technology	Dr. Farha
Automation & Control Engineering Technology	Prof. Ashby
MSECT	Dr. Clyburn
Ph.D. Program	Dr. Beach

Farha: Asked Ashby how do you attract high school students to the Automation program?
Ashby: Project Lead the Way
Clyburn: Suggested that names of large well known industries that hire our students be used in our recruiting.
Brasker: Suggested that we get information about the Automation & Control Engineering Technology Program into publications such as Control Magazine, etc.
Ashby: We are getting really good publicity from ISA. Scholarships will also help attract students.
Brasker: Don't forget IEEE.

Student Co-ops and Placement. Dr. Croft reported that we have several students doing co-ops in local corporations. The last data we have regarding placement of our graduates was gathered for our last NAIT accreditation. Placement information is no longer being kept by the university. We do have graduates working all over the nation and in major and minor corporations all over the state. Our graduates also work in insurance and other unexpected fields.

Grants. Prof. Ashby reported that we recently received a NSF grant in the amount of $800,000. Dr. Cockrell and Don Arney (Ivy Tech) are P.I.s. Prof. Ashby is a secondary investigator. He talked about the remote lab advantage over simulation and outlined the 60 learning modules being developed.

Recruitment & Retention Activities. Dr. Farha talked about activities on the College of Technology level: Tech Trek, Tech Prep, Hands On High Tech, Articulation Agreements, and new brochures are being developed. Also University level: new web site (indstate.edu), Foundational Studies Program, First Year Students Program, Sycamore Advantage, Knowing Sycamores. Dr. Croft also mentioned that the ECT Department sent out materials to local and area high schools for the past few years and has begun to see some benefits from that effort.

Scholarships. Dr. Croft said that he had attended an Honors Day ceremony a few years ago where the ECT Department only awarded one scholarship. So we initiated a campaign to start new scholarships for our students (Alumni Endowed Scholarships). This year we were able to award four scholarships from this fund. Mr. Roop asked if it would be appropriate for the Advisory Board members to support a student scholarship?

Program Accreditation. Current accreditation is from NAIT. A consultant from TAC-ABET is coming later this month to consider accreditation.

Faculty Search Update. Prof. Malooley reported that we recently conducted a nationwide search. We had 40+ candidates and brought in 3 for

interviews. The Search Committee has made their recommendation to the Dean. The Dean is currently contacting the candidate who was the number one selection.

Chair. A nationwide chair search was not granted. Dr. Ming Zhou is the Interim Chair until June.

Directions for the Future.

Jochem: We value critical thinking skills. One way to do this is to give students projects. He would encourage this. He would also encourage ECT students to take as many Computer Science courses (Linux, C++, etc.) as they can.
Roop: Suggested that we should be selling "a quality of life" instead of selling our product. Most big companies are using this approach to their advertising.
Brasker: What distinguishes us from other programs? He said that the Automation and Control Engineering Technology Program may be just that thing. He sees a real need in industry for graduates of this exact program.
Jochem: Does the department or college have funds for marketing without asking the university? Prof. Malooley replied that we are required to go through our marketing office for permission to use any ISU logo, etc. Dr. Jochem said to tell the university that our advisory board suggests these things ("This is industry talking.") He asked what can we as outsiders do for you? We suggested that as outsiders we can say & do things that faculty cannot. He said that we need to build constituency and support within the College of Technology.
Roop: Suggested that we approach the Marketing Department to have students to a project advertising our department.
Croft: Asked the board members what we can do to increase enrollment? He suggested the possibility of setting up communication among themselves and providing input to us.
Jochem: He suggested the possibility of offering a Robotics Engineering Technology program.
Roop: Robotics and Automation are the new basic skill sets to take out and market.
Watler: Recruit high school counselors and IVY Tech counselors.
Jochem: Asked if it would be possible for the advisory board members to get a list of new admits to contact by phone. Watler and Jochem both agreed that could be very useful.

The meeting adjourned at 2:45 p.m. Faculty members took the advisory board members on a tour of the ECT labs and facilities.

Indiana State University
Department of Electronics and Computer Technology
College of Technology

Advisory Board Meeting
April 13, 2007
Minutes

Present:

Advisory Board Members: Mr. David Adler, Mr. John Brasker, Mr. Brian Bridgewater, Mr. J. R. Musselman, Ms. Dana Nakanishi, Mr. Richard Roop, and Mr. John Watler
ECT Department Faculty: Mr. Joe Ashby, Dr. David Beach, Dr. William Clyburn, Dr. Gerald Cockrell, Dr. William Croft, Mr. Nicholas Farha, Dr. Yuetong Lin, Mr. David Malooley, and Dr. Reza Raeisi
Guest: Mr. Brian Bonnett (TRW)

The annual Industrial Advisory Board Meeting for the Electronics and Computer Technology Department was held April 13, 2007 on the campus of Indiana State University, TC 101E. The meeting came to order at 9:45 a.m. Members and faculty briefly introduced themselves. Opening remarks were made by Dr. William Croft.

Dean's Remarks. Dean Foster reported on the College of Technology's reorganization from five to three departments effective Fall 2007. He also spoke about the COT's participation in Project Lead the Way, a program whereby high school students can earn up to 15 credit hours for courses taken. The Dean talked about some of the COT graduates and the jobs they are being offered upon graduation. He also mentioned the competition being provided by IVY Tech.

Advisory Board members each gave updates on their recent activities.

Minutes from the last meeting (4/7/06) were approved (Motion, Watler/Cockrell) unanimously.

Undergraduate Electronics Technology Program. Dr. Cockrell reported that the ECT programs have gone about 25 years without modifications. He asked board members what they see as new electronics technology for the future. Dr. Cockrell talked about program considerations such as *standards* being very important in the curriculum. Ms. Nakanishi noted that we should include not only U.S. standards, but also global standards. Is there benefit to putting a lab together? A large percent of our curriculum is lab-based. Is that what we should continue to be doing? Or can we simulate? It was suggested that much of the labs could be done in Project Lead the Way.

Dr. Croft asked how much of these program considerations need to be emphasized?
Mr. Bonnett: Some consolidation could take place.
Mr. Musselman: AC-DC op amps could be condensed, and that fundamentals should be covered at a shallow level while upper level material should be at a deeper level.
Mr. Bridgewater: Ability to communicate in a technical way.
Mr. Brasher: Students can not get enough Physics.
All agreed that Fluid Power should remain.
Math
IMT 103---some yes, some no
Dr. Cockrell: The emphasis in the last two years has been critical thinking and critical analysis.
Ms. Nakanishi: Make first two years better than what IVY Tech students are getting in their first two years.

Internship Report. Jesse Wortman transferred to ECT from Lakeland. He had an internship during Summer 2006 at B&C Machine & Design in Effingham, IL and gave a presentation about his experiences and discussed the types of technology used. Jesse is graduating May 2007 and has been offered a job at Praxair.

Nationwide Electronics Program at Distance. Dr. Croft explained the Nationwide articulation which would open up our 3rd and 4th year degree completion program to distance students nationwide. We would transfer in credits as a block for students who have earned an A.S. degree.

Computer Engineering Technology. Dr. Croft explained the process that has gone into revising the old Computer Hardware Technology program which has become the new Computer Engineering Technology major. The ECT Department has surveyed Advisory Board members, alumni, students, etc. After examining other programs across the country we found that we were already a Computer Engineering Technology program. We just didn't have the name. Former students said that the "name" would have made a difference in the type of job they could get. The accrediting group would change from NAIT to TAC-ABET. Dr. Croft described the new curriculum and the courses. Mr. Roop: "Awesome, this hits exactly what we need in industry." Mr. Musselman: "I don't see anything on computer security." The faculty has worked on this program revision and voted to approve. Dr. Croft asked for a vote (7-0-0) from the Board to proceed.

Information Technology Program. Prof. Farha gave an overview of the IT Program and noted that it does lack a security course. If it did include a security course he would put it up against any IT program in the nation. Mr. Musselman: Needs a security course and system design (configuration, etc.)

Graduate Programs. Dr. Clyburn reported briefly that there are approximately 80 students currently in the on-campus M.S. ECT Program. These students are mainly from India, and come here without any advertising or promoting.

Mr. Musselman: Through his company, he works with Vanderbilt Advisory board. They solicit companies for projects.

Dr. Cockrell talked about the M.S. ECT Distance Program and that it continues to grow. Students are enrolled from all over the United States.

Dr. Cockrell also spoke about the Ph.D. Program. 156 students are currently enrolled in the program among a consortium of five universities. He reported that Mr. Timur Mirzoev is graduating from the program in May and has a faculty position at Georgia Southern University beginning in Fall 2007.

Articulations._ Our articulations with two-year colleges have recently been updated.

Internships/Co-ops. A list of recent internships and co-ops was presented to the Board.

Placement. The ECT Department continues to have very high undergraduate placement numbers (80-85%).

Student Recruitment & Retention. After brainstorming sessions, the ECT Department tried the simplest thing first—we sent letters to all the Guidance Counselors in Indiana and Illinois. Then we sent letters to technical teachers in those high schools. We are now beginning to get calls and inquiries from these people.

NAIT Accreditation. Dr. Croft announced that we have full accreditation until 2010 for all programs in the department.

Faculty Grants.
Prof. Joe Ashby: His Promising Scholar funding is internal ISU money, but came from Lilly. His project is "Remote Labs." Mr. Ashby also has an IRTS grant. He reported that he will be going to Project Lead the Way Training.

Dr. Yuetong Lin: Has a Promising Scholar grant. His project is "Combining Neural Networks & Fuzzy Logic."

Dr. Reza Raeisi: Has a grant for Digital Logic Design.

Dr. Gerald Cockrell: Has been awarded an NSF grant. He mentioned that this opens the doors for ISU College of Technology to get more of these grants in the

future. He will write 60 modules to be used in conjunction with IVY Tech. The award is for $800,000 over 3 years.

College of Technology Reorganization. The ECT Department will meld with a portion of the IMT Department. We will take on four of their faculty and some of their programs. Our programs will continue to exist as they are and we will still have need for our Advisory Board.

Assessment Plan. NAIT said that we lacked an Assessment Plan. Dr. Croft presented a two page (draft) questionnaire. The Advisory Board suggested that the wording in the questionnaire be changed from "liked best" or "liked least" to something like "strongest points."

Directions for the Future. Mr. Musselman again mentioned the Vanderbilt Advisory Board and suggested that it might have some benefits for us.

Dr. Croft thanked all for coming, and emphasized that we do listen to their suggestions and advise. He gave each member a College of Technology shirt. The meeting adjourned at 2:50 p.m.

Indiana State University
Department of Electronics and Computer Technology
College of Technology

Advisory Board Meeting
April 7, 2006
Minutes

Present:

Advisory Board Members: Mr. Brian Bridgewater, Ms. Dana Nakanishi, Mr. Richard Roop, and Mr. John Watler
ECT Department Faculty: Mr. Joe Ashby, Dr. David Beach, Dr. William Clyburn, Dr. Gerald Cockrell, Dr. William Croft, Mr. Nicholas Farha, Dr. Yuetong Lin, Mr. David Malooley, and Dr. Reza Raeisi
Guest: Dr. Tad Foster

The annual Industrial Advisory Board Meeting for the Electronics and Computer Technology Department was held April 7, 2006 on the campus of Indiana State University, TC 314. The meeting came to order at 9:45 a.m. Members and faculty introduced themselves briefly. Opening remarks were made by Dr. William Croft.

Dean's Remarks. Dean Foster mentioned that Digital Communications was the largest contingent in the Ph.D. program. Electronics Technology is always changing and is challenged to remain current. He briefly discussed budgetary issues at ISU.

Dr. Croft announced that Dr. Maloba has resigned his faculty position in the ECT Department and remains in the Democratic Republic of Congo as the President of the National Electric Company there.

Undergraduate Electronics Technology Program. Prof. Malooley gave an overview of the curriculum. The Program is scheduled to be revised in the next two years. He asked board members for their input for program revision. ECT 160 will become a non-major course and will be developing a section of 160 for Automotive majors. He announced that we will be offering our program (ECT 321 forward) at a distance on a nationwide basis. Mr. Roop inquired as to what had previously limited it to the state of Indiana. Dr. Cockrell asked the board members what language would be most beneficial for our students to study. They replied: Chinese, Spanish, Japanese. Prof. Malooley also talked about the transfer and articulation process and showed ISU's Transfer Central website and the Computer Assisted System (CAS). ISU is one of 259 institutions participating in CAS, and students may log on and get direct course equivalency information. Also, an interactive DARs is soon to come online.

Computer Hardware Technology Program. Dr. Raeisi explained that the program was very similar to the Electronics Technology program and that was the reason for revision. The Program has undergone a 2 year review. We are presenting the results of that review and we ask for comments from the Advisory Board. New emerging technology courses are to be offered in the revised program. Some courses have been eliminated from the old program and new ones added. Mr. Bridgewater asked if we based our benchmark against Computer Engineering degrees? Dr. Raeisi and Prof. Ashby gave a course by course overview of the courses to be included in the new program. Mr. Bridgewater asked if any course would cover industry standards such as S95? Dr. Croft asked for input—are we on the right track, have we missed anything? Ms. Nakanishi commented that some 200 level courses have been re-numbered as 100 level courses. Mr. Bridgewater asked how we will differentiate ourselves from MIS or IT majors. Dr. Croft replied that the revised program will move us to look like MSI or IT majors, but with much more added. We will keep the IT side but will retain the industrial flavor. Dr. Cockrell explained that in 1981 the program was

called Computer Technology and later changed to Computer Hardware Technology. Mr. Bridgewater asked if our vision for the program is plant floor perspective or IT perspective. He sees too much computer design. Mr. Watler agreed. Those things are not needed in industry. Dr. Croft explained that we need to produce a person who is employable in all facets and useful in the marketplace. Mr. Bridgewater added that our graduates need to be able to "program it, understand it, and communicate it." Ms. Nakanishi sees a product design person coming out of this program more than overall systems integration. Mr. Roop: (1) In the power industry, there is a need for the Computer Hardware program and that is the type of person they look for. (2) Small and medium sized businesses are driving the economy and this Computer Hardware Program fulfills their needs. Mr. Watler said that careful advising will be needed to know what direction a student would want to take. Mr. Roop wants to challenge us to be visionary-- what will be needed for the future. Mr. Watler felt like he got from the ECT Department a very good foundation for what he needed in his career. Mr. Bridgewater suggested that plant tours would be very beneficial, and that after tours students should be asked what route they want to take—plant floor or IT? We could ask alumni to give plant tours.

Nationwide Articulation. We are preparing to open up our 3rd and 4th year degree completion program to distance students nationwide. We would transfer in as a block for students who have earned an A.S. degree. Question to the advisory board: Do you have any reservations about the concept or ideas on the subject. Mr. Bridgewater expressed concerns about resourcing or staffing to support the courses. Could graduate students teach? Mr. Watler asked how large we anticipated the population grow, and that we might consider limiting enrollment if needed. Dr. Cockrell sees this as growing to be similar to the University of Phoenix, and added that it will be open to those in the military. Mr. Bridgewater asked who we are aligned with for marketing? Dr. Croft asked if there were any cons to consider and how it might be viewed by employers. Mr. Roop asked if we have a plan in place to prevent other schools from copycatting. Ms. Nakanishi asked if we had the hardware requirements to support the increased student enrollment. The Advisory Board as a whole gave their approval to offering the program on a nationwide basis.

Information Technology Program. Prof. Farha gave a brief overview of the program, explaining that there were four ways to approach the study of computers at ISU: 1. Computer Science (Programming), 2. MIS (Business based), 3. Computer Hardware Technology (Electronics based), and 4. IT (Technology based, broadest content). Currently there are 126 majors in the IT Program. Prof. Farha hopes to add a securities course to the program. Mr. Watler suggested that we open up Computer Technology courses into the IT program.

M.S. Program. Dr. Clyburn gave an overview of the program. He reported the enrollment figures for the on-campus M.S. in ECT program were 51 students in Fall 2005, and 40 students in Spring 2006. He has admitted an

additional 40 students for Fall 2006. Enrollment in the on-campus program is primarily made up of students from India. He asked board members to keep in mind that these students have BSEE degrees and could help with projects or problems in industry, and the students could then use that experience as a Major Project. Advisory Board members could then serve as a member of the student's Major Project committee.

M.S. Program (Distance). Dr. Cockrell reported that currently 24 students are enrolled in the distance M.S. program. These students are full time working professionals.

Ph.D. Program. Dr. Beach gave an overview outlining specializations and participating consortium members. There are currently 152 students enrolled, 48 are in Digital Communications.

Faculty Activities, Grants, etc.:

Prof. Joe Ashby: Mini-grant ($5,000) for PLC Trainers for remote lab to allow distance students to perform hands on lab work.

Dr. David Beach: Serving on 37 Ph.D. dissertation committees

Dr. William Clyburn: Mini-grant for Systems Integration

Dr. Gerald Cockrell: He is involved in a long-term project with Russia. 11 students came here last summer for a week as part of an exchange program with ISU. 6 more students are scheduled to visit this Fall. He has been teaching a Distance Project Management course and will be awarding completion certificates at the end of this semester. He also announced the creation of CASI (Center for Automation and Systems Integration).

Dr. Yuetong Lin: Mini-grant for the upgrade of software. He is also collaborating with Dr. Beach on the Neural Network.

Dr. Reza Raeisi: Internal grant to revitalize micro-controllers in labs.

Recruitment. Dr. Croft reported that recently the faculty met for a brainstorming session regarding ideas for recruiting new students to ECT. They came up with 30 ideas and narrowed those down to the top 5. Dr. Cockrell asked student Michael Grounds what he would view as the best way to reach high school students? And what influenced him to come to ISU. Suggestions from the advisory board: Science Fairs, Boy Scout Science Fair, and 4-H.

NAIT. Dr. Clyburn reported that the ECT department is in the process of preparing a 2-year report. During our last review, the accreditation team felt that we were in partial compliance for 10 items. A 2-year review will answer those problems. We were criticized heavily on our Assessment Plan.

Questions from the Advisory Board:

What is our budget for the year? (Mr. Bridgewater)

$11,000 equipment

What about contact with alumni and gifts? (Mr. Roop)

- Scholarship initiative
- ECT Foundation
- New Development Director interviews are currently taking place

What about the possibility of a Mentoring program (alumni)? (Mr. Bridgewater)

What about the possibility of a Career Day—bring in alumni who are professionals for students to talk with? (Mr. Roop)

Dr. Croft asked the board members to complete the written surveys before they left for the day including an Assessment Survey.

Mr. Bridgewater mentioned that Purdue graduates are required to do a 4-year project as an assessment tool.

Mr. Watler suggested an Exit interview with students upon graduation. A one-on-one informal interview. Not necessarily every student, maybe just a sampling.

Mr. Roop suggested a Senior Exam that would pull everything together in their major.

Dr. Croft asked, "What do we do with the results?" Compare grade results with those in courses taken by the student. Mr. Roop said the exam does not need to be difficult—just something to see that students have basic competency and help bring together everything they have learned. Bring career application-type questions into the exam. Or—questions to graduates after one year of work to find out if students are adequately prepared.

What competencies are needed? Written and verbal communication skills (Nakanishi and Bridgewater). Mr. Roop suggested that each course require a written report. Senior projects would challenge students' technical and communication skills. Ms. Nakanishi added that presenting gives students the opportunity to present in a safe environment.

Dr. Croft asked, "What made your employer hire you?" I was able to exhibit fundamental methodology of problem solving (Nakanishi). Common sense and could communicate. They saw that I had a degree and knew that I could problem solve (Watler). Titles are very important buzzwords to employers when they hire (Roop).

Suggested Content Areas for the Future:

- Technical Research skills (Watler)
- Being able to read prints (Roop)
- Understanding Standards (Bridgewater)
- Industry Regulations (Nakanishi)
- Regulatory bodies—teach OSHA, NFPA, etc. (Roop)
- Industrial Safety Network (Nakanishi)

The meeting adjourned at 3:35 p.m.

Indiana State University
Department of Electronics And Computer Technology
College of Technology

Advisory Board Meeting
April 22, 2005
Minutes

Present:

Advisory Board Members: Mr. David Adler, Mr. Brian Bridgewater, Mr. J. R. Musselman, and Mr. Richard Roop
ECT Department Faculty: Mr. Joe Ashby, Dr. David Beach, Dr. William Clyburn, Dr. Gerald Cockrell, Dr. William Croft, Mr. Nicholas Farha, Mr. Richard Jinbo, Mr. David Malooley, and Dr. Reza Raeisi
Guest: Dr. Tad Foster

The annual Industrial Advisory Board Meeting for the Electronics and Computer Technology Department was held April 22, 2005 on the campus of Indiana State University, TC 314. The meeting came to order at 10:00 a.m. Members introduced themselves briefly. Opening remarks were made by Dr. William Croft who gave an overview of the ECT Department curriculum and announced our recent reaccreditation by NAIT.

Prof. Farha reported on the Information Technology major which currently has about 130 majors. ECT, MIS, and CS departments are all involved in this major.

Dr. Clyburn talked about the M.S. in ECT Program on campus. He spoke of his duties as Coordinator and stated that there are currently 54 students in the program. A brief overview of the curriculum was presented.

Dr. Cockrell described the M.S. in ECT at Distance Program. ISU has become a leader in presenting distance courses and simulation via the internet. The only advertising for the program is done through ISA. The content is exactly the same as for the students who study on the ISU campus. There are currently 66 active students in the M.S. at Distance program.

Dr. Cockrell also spoke about the Ph.D. in Technology Management degree. It is made up of a consortium of five universities, and is the largest doctoral program at ISU. Admission to the program is very selective, with about 150 students currently accepted. Eleven students have graduated to date.

Prof. Malooley described the Electronics Technology B.S. degree and the articulation programs with 2-year schools. He gave an overview of our current curriculum and 4-year plan. Dr. Cockrell asked the Advisory Board what foreign language they would view as most beneficial for advisors to recommend to students. All agreed that Spanish is the language they would recommend.

Dr. Croft talked about the distance-based undergraduate program in ECT . IHETS courses have been eliminated and delivery is now internet-based, paving the way for consideration to offer the program nationwide. He told the board members that he will be seeking their input on issues they may anticipate in offering the courses on a nationwide basis.

Prof. Ashby and Dr. Raeisi reported for the Computer Hardware Subcommittee. They discussed the proposal to revise the Computer Hardware Program and asked for help in finding opportunities for our students. The purpose of the program modification is in response to changes in industry. The proposed 4-year plan was presented and discussed course by course. Several new courses are included in this plan. J. R. Musselman noted the addition of several new courses and asked if old courses had been eliminated or combined. Dr. Croft clarified what is being done. He also talked about how the Computer Hardware major and Electronics major curricula currently look almost identical except for only 4 courses. David Adler asked about server technology. What course or courses would include that material? Brian Bridgewater asked about other networks besides ethernet networking such as bus networks. Dr. Cockrell noted that we no longer are working with components. This has become a "systems world." J.R. Musselman expressed that he saw this program modification as a great move. He said that we must think about the future, and that the U.S. is becoming less of a manufacturing country and is moving more toward Information Technology. He asked about Information Security. He was concerned as to whether we were including courses covering security. Brian Bridgewater mentioned a need for people to understand Data Segregation. Dr.

Croft said that sometime between now and the next meeting the department will be asking for input from the Advisory Board members on the proposed curriculum. Brian Bridgewater and J.R. Musselman talked about Wireless Technology and how it can be applied to the plant floor. Mr. Musselman applauds our efforts and thought we are on the right path but also advised us to look to the future. A Computer Hardware Technology Survey was included in the materials given to the Advisory Board members. Dr. Croft asked the board to answer the questions on the survey and return them to the ECT Department by June. There was also some discussion about the name of the program and if it conveys what the major is about. Mr. Adler mentioned the possibility of using the word "Infrastructure" in the program name.

A motion was made (Cockrell/Malooley) to have Brian Bridgewater and David Adler as permanent members of the ECT Industrial Advisory Board.

Dr. Croft reported to the board about the ECT Department Scholarship Initiative. It is an in-house initiative to promote new scholarships for our students. What can we do to establish and offer new scholarships to our students? He asked for input from the board members as to where we might seek money for this program.

Lunch was served at George's Café, 12:00-1:00.

Dr. Cockrell reported that the Automation Task Force was looking at developing among several departments an interdisciplinary program in Automation. The Dean would like to develop a Center for Automation and Systems Integration which would be a Center for Expertise to be utilized by industry. Dr. Cockrell asked for input as to whether something like this is needed. Mr. Adler mentioned that Imperial College (London) might be a good place to model the Center after. He could provide information about that institution. Mr. Bridgewater said this would allow high school students to know what can be done with this kind of degree. He thinks they would find it fascinating. Dr. Croft asked what kind of issues they could see us having to deal with. Mr. Adler mentioned colloquialisms and ways we communicate with other cultures. Dr. Croft asked how does industry view hiring people who have a distance based education. Mr. Adler related that Lilly is very traditional in the types of people they hire, and are more inclined to hire people from the Midwest.

At the conclusion of the meeting the Industrial Advisory Board members were invited to tour the John Myers Technology Building and the ECT laboratories.

The meeting adjourned at 1:50 p.m.

6.15 Educational Innovation

6.15.1 Educational Innovation: There shall be evidence that program objectives are based upon long-range planning related to the industries being served. Program content must be current in both content and delivery of instruction.

Presentations and participation of faculty at national and international conferences in education or technology provide partial evidence that innovation furthering program objectives is being carried out. This information is included as portions of the faculty resumes.

Educational innovations of the Department include emerging areas of distance delivery or evaluation; and cooperative/multidisciplinary research or development activities. As of 2009, the ECMET faculty participate in a degree completion program that allows students to start their education at other institutions and to complete it at Indiana State University. There are also many signed articulation agreements between programs in the ECMET Department with two-year institutions from Indiana and Illinois.

Faculty and students in ECMET have developed a robotics laboratory that is viewable across the Internet.

Two course description examples are included to demonstrate innovation in diverse areas such as management and robotics.

- *Course development work for ECT437 and ECT537 Industrial Computer Systems Management*

This course offers students in the Computer Engineering Technology and other engineering technology programs exposure to classic project management practices and tools. The course was developed in 1981. Extensive changes were made incrementally to the course during the 2005 and 2006 schools years. These changes included: (a) the addition of a team project component where the teams are tasked to develop a complete project plan including staffing, scheduling, costing, risk analysis and closure plans; (b) the team members share common technical skills or a mix of backgrounds to accommodate cross-discipline project experience; (c) the graduate students are assigned team leadership roles; (d) the distance and face-to-face sections of the course were combined using Blackboard as the common course delivery tool with classroom lectures being recorded and archived for the distance students; (d) the project teams were organized such that each had both on-campus and distance members, requiring the use of web meeting tools to accomplish the project assignment; and (e) the need for professionalism and timeliness is stressed in all written and oral communications in the course.

A description of these course improvements and the results were outlined in a peer-reviewed paper published and presented at the 2008 Annual ASEE IL/IN Section Conference held on April 5, 2008. The paper was titled *Facilitating Team Activities in a Project Management Course*.

Faculty in the ECMET Department are currently involved in Project Lead the Way. This project involves developing curriculum in Indiana High Schools that lead to college credit.

At present, the Electronics Technology baccalaureate program offers 100% of the department's upper division courses via WEB based delivery.

Recently (2009) several ECMET faculty have participated in traveling to local high schools and delivering discussions and presentations regarding degree programs at Indiana State University.

Several ECMET faculty are currently involved in a large National Science Foundation grant secured by members of the Department. This grant calls for participation between ECMET faculty at ISU with faculty at a local two-year institution to develop educational modules to delivered via distance-based modality.

The NSF grant is in the last year of a three year effort. The grant team is developing a series of automation technician training modules in collaboration with Ivy Tech Community College Wabash Valley. The program, called AutomationTek will include 60 online training modules. A student will be able to complete the modules and receive a certificate of completion validating the learning experience. Indiana State University will offer the online laboratory exercises for the program.

Members of the department participated in a number of automation related activities including:

1. Member of a team in partnership with the International Society of Automation (ISA) and the US Department of Labor to develop an Automation Competency Model.
2. Member of a team to develop an Automation Engineering sample curriculum through ISA.
3. Met with White house and Congressional officials to support development of a Industrial Cyber Security curriculum.

6.16 Assessment

6.16. Assessment Plan and Integration: An assessment plan shall be comprised of, but not limited to, the following for each program: (1) program mission statement, (2) program outcomes/student competencies, (3) evidence that the program incorporates these outcomes/student competencies, (4) assessment measures used to evaluate student mastery of the student competencies stated, (5) compilation of the results of the assessment measures, and (6) evidence that these results are used to improve the program.

Beginning in 2010, Eleven outcome competency areas and associated performance criteria have been identified and a review process developed to determine if these areas are being met. These areas are: (A) Mastery of Knowledge and Tools, (B) Apply Technical Knowledge, (C) Experiment And apply Results, (D) Be Creative In Design And Application, (E) Function Effectively In The Team Environment, (F) Effective Problem Solving, (G) Effective Communication, (H) Embrace Lifelong Learning, (I) Understand Professional And Ethical Responsibilities (J) Respect Diversity and Professional Responsibilities, (K) Embrace Quality.

The Evaluation plan is shown in Figure 6.3.11.

Figure 6.3.11:
Program Outcome measurement plan for ET

Summary of courses where evaluation will take place:
ECT 232 (1), 281 (1), 321 (1), 325 (1), 343 (2), 430 (1), 437 (6), 444 (4), 448 (3), 488 (12); MET 203 (1); TMGT 471 (1), 478 (3)

Outcome A - Mastery of knowledge & tools

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Application of circuit analysis and design.	ECT 221, 321, 421	Evaluation of in-class problem solving per rubric	ECT 321	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
2. Application of circuits, design, and application.	ECT 165, 167, 324, 325, 343, 448	Evaluation of in-class project per rubric	ECT 448			
3. Application of Digital Electronics	ECT 231, 232	Evaluation of performance per semester project rubric	ECT 232	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
4. Application of computer programming and associated software	CS 151, 256; ECT 165, 167, 281, 444	Evaluation of in-class problem solving per rubric	ECT 281			

5. Apply science, math, and engineering tools	Physical science courses (8hrs); MATH 115, 301; MET 103, ECT 381, 437, 448, 488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
6. Apply PLCs, Robotics, and control system equipment	ECT 281, 280, 444, 488	Evaluation of in-class project per rubric	ECT444	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
7. Use fluid power, engineering materials and manufacturing processes	MET329; MFG225, 370,371; ECT488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
8. Management techniques of systems and processes	ECT 437, 488; TMGT 478,471,473,492	Evaluation of in-class project per rubric	ECT437	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome B - Apply technical knowledge

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Use mathematics in design	Physical science courses (8hrs); MET103; ECT165,167,231, 221, 324, 448, 488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
2. Modeling for analysis	MET203	Evaluation of in-class project per rubric	MET203	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team

3. System design	MET299; ECT488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome C - Experiment and apply results

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Conduct Experiments	Physical science lab courses (2hrs); ECT 167, 281, 448, 488; MET 329	Evaluation of lab work in class per rubric	ECT 448	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
2. Analysis and interpretation of laboratory exercises	ECT 167, 324, 325, 343, 448, 488	Evaluation of lab work in class per rubric	ECT 343	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
3. Test plans	ECT488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome D - Be creative in design and application

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Circuit design	ECT 165, 167, 232, 324, 325, 343, 448	Evaluation of lab work in class per rubric	ECT 325	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team

2. Software and program development	CS 151, CS256; ECT 165, 167, 281, 444, 488; MET 329	Evaluation of performance per semester project rubric	ECT444	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
3. System design and control	ECT 324, 448, 488	Evaluation of lab work in class per rubric	ECT 448	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team

Outcome E - Function effectively in the team environment

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Effective team member	Physical Science lab courses (2 hrs); MET329; ECT165, 167, 324, 325, 437, 488; TMGT 471, 478, 492	Evaluation of in-class project per rubric	TMGT 478	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
2. Understands the purpose of teams	Physical Science lab courses (2 hrs); MET329; ECT165, 167, 324, 325, 437, 488; TMGT 471, 478, 492	Evaluation of in-class project per rubric	ECT437	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
3. Works and communicates well in the team setting	Physical Science lab courses (2 hrs); MET329; ECT165, 167, 324, 325, 437, 488; TMGT 471, 478, 492	Evaluation of in-class project per rubric	ECT437	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome F - Effective problem solving

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Effectively used problem solving methods	Physical Science lab courses (2 hrs); MET329; ECT165, 167, 324, 325, 437, 488; TMGT 471, 478, 492	Evaluation of lab work in class per rubric	TMGT 471	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
2. Use electrical troubleshooting tools properly	ECT 165, 167, 324, 325, 343, 448, 488	Evaluation of lab work in class per rubric	ECT 343	F2010, F2013, (3 year cycle)	ET Program Champion	ET Program Team
3. Debugs logic and software applications successfully	CS256; ECT 281, 280, 444, 488	Evaluation of lab work in class per rubric	ECT444	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome G - Effective communication

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Exhibits good verbal communications	Foreign Language Studies (6 hrs); COM101; ECT437 ,488; TMGT 478, 471, 492,	Evaluation of in-class project per rubric	TMGT 478	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

2. Possesses good written communication skills	ENG101,105,107, 305T; ECT165,167,437,488; TMGT478	Evaluation of in-class project per rubric	ECT 437	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
3. Understands the need for formality and respect in communication	Foreign Language Studies (6 hrs); ENG101,105,107, 305T; ECT165,167,437,488; TMGT478,492	Evaluation of in-class project per rubric	ECT437	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome H - Embrace lifelong learning

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Demonstrates a desire to learn	Every course	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome I - Understands professional and ethical responsibilities

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Demonstrates professionalism	ECT 165, 167, 324, 325, 343, 448, 488; TMGT 471, 478, 492	Evaluation of in-class project per rubric	ECT437	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

2. Understands and exhibits ethics	Foreign Language Studies (6hrs); Social and Behavioral Studies 6hrs); Literary, Artistic & Phil. Studies (6hrs); Historical Studies (3 hrs); Multi-cultural Studies (6 hrs); Liberal Studies Capstone (3 hrs);TMGT478,492, ECT437,488	Evaluation of in-class project per rubric	TMGT478	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
3. Understands the role of professional societies	ECT 130, 430, 437	Evaluation of in-class project per rubric	ECT430	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome J - Respect diversity and professional responsibilities

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Understands the automated control system marketplace	ECT 430, 444, 437,488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

2. Understands social responsibility	Foreign Language Studies (6hrs); Social and Behavioral Studies 6hrs); Literary, Artistic & Phil. Studies (6hrs); Historical Studies (3 hrs); Multi-cultural Studies (6 hrs); Liberal Studies Capstone (3 hrs);TMGT478,492, ECT437,488	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
3. Understands the responsibility of safe design practices and operations	TMGT 471, 478, 492; ECT 430, 437, 444, 488; MET329	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Outcome K - Embrace quality

Performance Criteria	Strategies	Assessment Methods	Source of Assessment	Time of Data Collection	Assessment Coordinator	Evaluation of Results
1. Understands the breadth of quality concerns	ECT 325, 343, 444, 437, 448, 488; MET 329; TMFG 471, 478, 492	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team
2. Understands the importance of quality	ECT 325, 343, 444, 437, 448, 488; MET 329; MFG 370, 371; TMGT 471, 478, 492	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

3. Understands timeliness and continuous improvement	ECT 325, 343, 444, 437, 448, 488; MET 329; MFG 370, 371; TMGT 471, 478, 492	Evaluation of performance per semester project rubric	ECT488	Sp2011, Sp2014, (3 year cycle)	ET Program Champion	ET Program Team

Figure 6.3.11:
Program Outcome measurement plan for ET

As this is a new procedure beginning in 2010, no data is available at this time.

ELECTRONICS TECHNOLOGY

SELF-STUDY REPORT

for the

ASSOCIATION of TECHNOLOGY, MANAGEMENT, and APPLIED ENGINEERING

DEPARTMENT OF ELECTRONICS, COMPUTER, AND MECHANICAL ENGINEERING TECHNOLOGY
COLLEGE OF TECHNOLOGY
INDIANA STATE UNIVERSITY

February 2010

Section III

Compliance with Standards

Electronics & Computer Technology Department

Electronics Technology B.S.

Compliance with Standards

6.1 Preparation of Self-Study Report

Self-Analysis: The Self-Study Report shall follow the guidelines and be completed by a representative portion of the institutions administrative staff, teaching faculty, and students.

During the Fall Semester, 2009, the preparation of the self-study of the Electronics undergraduate degree program offered by the Department of Electronics, Computer, and Mechanical Engineering Technology was completed in concert with the Administration, Faculty, Staff, and students of programs seeking accreditation within the College of Technology. Numerous meetings of key Administrators, Faculty, Support Staff, and Students were held under the guidance of Dr. R. Brad Lawson, a long time member of NAIT Accreditation teams and board. Additionally, Faculty retreats have been held to establish a new evaluation plan for determining the achievement of student success for the degree. A special meeting of the Industrial Advisory Board was held to more clearly define curriculum, outcomes, and student competencies.

6.2 Philosophy and Objectives

6.2.1 Mission: The department, college, and institutional missions shall be compatible with the approved definition of Industrial Technology.

In the rapidly changing "Global" society and Just-In-Time manufacturing that is "Lean" in every respect, students must be prepared as never before. Students must understand the consequences of this new philosophy and realize that they must be better prepared not just in the traditional hard technologies as circuits, components, and devices, but must also be well versed in a "systems" approach. They must more fully comprehend both application based and off-the-shelf utilization of pre-engineered technology to be successful.

In the State of Indiana, the introduction of the Junior College system where students may complete the first two years of a baccalaureate program by completing an AS or AAS degree has forced universities to evolve. The influence of non – traditional students, i.e. those students entering as other than the traditional high school graduate in the same year, has required changes in the offering of the curriculum allowing students to cleanly articulate into the program. These factors along with direct input from the industrial advisory board, industry, faculty, recent graduates, and business has resulted in the program being continually scrutinized for objectives, content, sequencing, and structure. As a culmination of this process for the undergraduate program in Electronics, the Department has carefully developed curriculum procedures, contents and strategies resulting in the following Mission Statement.

"The Department of Electronics, Computer, and Engineering Technology at Indiana State University is to prepare students for careers as technical professionals in an environment that involves applications in design, manufacture, control and integration of electro-mechanical products or systems, and requires a practical problem solving approach that emphasizes hands-on skill with modern productivity tools (e.g. design, analysis, control, diagnostic, and project management tools)."

6.2.2 Program Definition: The major program definition and purpose shall be compatible with the approved definition of Industrial Technology.

The Electronics Technology program consists of curricular and hands-on experiences that are application-oriented; with technical content, information, and theory for the design, development, application, control, and utilization of electrical, electronic, power, Programmable Logic Controllers (PLCs) and other control technologies and strategies.

The ET program meets the definition of an Industrial Technology Program because its curriculum prepares students for technical and technical management-oriented professional positions in business, industry, and government. The curriculum provides:

1. Foundational Studies that integrate liberal arts, behavioral science, and communication skills.

2. Mathematics and physical science concepts and theories that are critical to the understanding and applications of electronics technology.

3. Concepts and principles of management, human resource, and production control in manufacturing industry.

4. All-around education in electronics circuits, components, and systems; robotics and automation, digital concepts, power, and circuit analysis.

6.2.3 Program Acceptance: Each major program shall be understood and accepted by appropriate individuals and representative groups within the internal university community and the external business and industrial community.

The Electronics Technology program is accepted throughout the University. Faculty members from the Department of Electronics, Computer, and Mechanical Engineering Technology are represented on virtually every major University Committee and College Committee. Faculty members are involved in university committees such as the Curriculum and Academic Affairs Committee, Graduate Studies, General Education Council, Foundational Studies Task Force, Faculty Senate and various committees throughout the College of Technology.

The support offered to the programs by industrial donations and willingness of industrial individuals to serve on the advisory board demonstrate their acceptance and unqualified belief in the value of the Department of Electronics, Computer, and Mechanical Engineering Technology to provide viable graduates able to perform and meet the needs of the employers.

The College of Technology as a whole is rapidly increasing in stature with the University community with some external degree programs partnering with or even desiring to join the College.

6.2.4 Program Goals: Each major program shall have clearly written short and long range goals and objectives, which are consistent with the mission statements, and plans for achieving them.

Provide knowledge and skill to prepare people to create, understand, apply and evaluate technologies in electronics, computer, automotive and mechanical engineering technology area;

Contribute to regional economic development by partnering with industries to develop or collaborate in applied research and development projects and technology transfer, and engaging in other public or community service activities;

Enhance graduate education and continue to develop academic scholarship through applied research, grants/patents, and other innovations;

Become a leader in degree completion partnership with other schools and colleges and providing high quality yet flexible curricula for non-traditional students via distance education.

Specific areas of competencies have been identified as: (A) Mastery of Knowledge and Tools, (B) Apply Technical Knowledge, (C) Experiment And apply Results, (D) Be Creative In Design And Application, (E) Function Effectively In The Team Environment, (F) Effective Problem Solving, (G) Effective Communication, (H) Embrace Lifelong Learning, (I) Understand Professional And Ethical Responsibilities (J) Respect Diversity and Professional Responsibilities, (K) Embrace Quality. These are more fully developed in Standard 6.3.11 below.

6.3 Major Program(s)

6.3.1 Program Name: Each program of study and/or program option shall have appropriate titles consistent with the approved ATMAE definition of Industrial Technology.

Electronics Technology

A proposal to change the name to Electronics Engineering Technology is in process at the time of preparation of this report. This change is to better reflect the current trend in use of the term Engineering Technology throughout the State of Indiana at Vincennes University and Ivy Tech Community College, two feeder programs of the BS degree program. The Industrial Advisory Board has also recommended this change during the November 2009 meeting.

6.3.2 Program Level: The major program shall lead to the baccalaureate degree, and not less than the junior and senior years of baccalaureate level study shall be offered by the institution seeking accreditation. Appropriate lower division requirements may be offered by the same institution or may be transferred from other institutions including community colleges and technical institutes.

The degree in Electronics Technology is a Bachelor of Science degree requiring 124-129 Credits (Depending on General Education preparation). Students must complete a minimum of 50 credits at the 3-400 level to earn the BS Degree. Students may take all four years at ISU or may transfer in with an approved articulated AS or AAS degree typically entering at the Junior level. Table 6.1 BS Degree Program, clearly shows the requirements for the program.

6.3.3 Program Definition: The major program may have more than one option, specialization, or concentration; but specific course requirements for each option shall be clearly specified, and all program options shall meet or exceed appropriate ATMAE standards

The baccalaureate degree in Electronics Technology prepares individuals by providing information and laboratory experiences. The familiarity with components, devices, and circuits enables students to acquire advanced technical expertise and competence that is necessary for the design, development, utilization, application, and management of electrical and electronic systems. The majority of the courses within the major are laboratory courses with additional class hours. A typical three credit laboratory course

will meet for two hours, three days a week, (or equivalent.) The degree program is offered as a typical four year brick and mortar for the traditional student or as a two year completion distance degree for students holding an AS or AAS from an approved accredited regional institution through comprehensive articulation agreements covering the first two years of course materials.

6.3.4 Program Emphasis: Primary emphasis in the major program shall reflect the current technology and management of industry.

The primary focus is to provide students the opportunity to develop an ability to properly handle actual on the job situations, as well as acquire an awareness of the need for continuing professional growth and education. Again, students must realize that they should be prepared not just in the traditional hard technologies as circuits, components, and devices, but must also be well versed in a "systems" approach. They must comprehend both application based and off-the-shelf utilization of pre-engineered technology to be successful. The ECT faculty constantly seeks to maintain a contemporary level of technology in all of its programs. This is accomplished through a variety of methods including meetings with the Department's advisory board; and contacts with alumni and local industry leaders. Visitation to area industrial facilities and contacts with colleagues through participation in professional organizations are also used to provide feedback in maintaining a contemporary level of technology in the program.

6.3.5 Foundation Requirements: Major programs shall be a minimum of 120 semester hours (or equivalent) and must meet the minimum foundation requirements shown in Table 6.1. Programs may exceed the maximum foundation requirements specified in each area, but appropriate justification shall be provided for each program and/or program option that exceeds the maximum limits. A specific list of courses and credit hours that are being counted toward each category shall be included in the Self-Study Report.

The course requirements for the Technical area of the major are 36 credits plus 8 credits of electives. The courses that are included in this area are essential in that sequential presentation of material from the introductory level to the advanced level is critical. Again, the rapidly changing "Global" society and Just-In-Time manufacturing that is "Lean" in every respect, requires students to realize that they must be better prepared not just in the traditional hard technologies as circuits, components, and devices, but also the "systems" approach. Course structure providing both application based and off-the-shelf utilization of pre-engineered technology is paramount. Upon advice from the Industrial Advisory Board, and faculty opinion, these 44 credits of technical content are critical.

TABLE 6.1
Electronics Technology

B.S. Degree Program
Minimum/Maximum Foundation Requirements

	Course Credits	ATMAE Requirements	ISU Requirements
General Education			
Eng. 101 & 105 or Eng 107	3-6		
Communications 101	3		
Physical Education	2		
English 305T	3		
Social & Behavioral Studies	6		
Literary, Artistic, and Phil. Studies	6		
Historical Studies	3		
Multicultural Studies	6		
Gen. Educ. Capstone Course	3		
Foreign Language	0-6		
		18-36	**35-44**
Mathematics			
Math 115 – College Algebra	3		
Math 301 – Applied Calculus	3		
CS 256 – Prin. Of Structured Des.	3		
ECT 221 – Circuit Analysis I	3		
ECT 321 – Circuit Analysis II	3		
ECT 421 – Ckt. Analysis by Calc.	3		
		6-18	**18**
Physical Science (any combination of the following)			
Physics, Chemistry, Life Science, Geology	8	**6-18**	**8**
Management			
ECT 437 – Comp. Systems Mgt.	3		
TMGT471 – Production Planning	3		
TMGT 478 – Ind. Organization	3		
TMGT 492 – Ind. Supervision	3		
ECT 130 – Intro. to Electronics	2		
ECT 430 – Senior Seminar	1		
		12-24	**15**
Technical			
ECT 165 – D.C. Ckts. & Design	3		
ECT 167 – A.C. Ckts. & Design	3		
ECT 231 – Digital Computer Logic	3		
ECT 232 – Digital Computer Ckts.	3		
ECT 324 – Dscr. Trans. Theo.& Ckt. Design	3		
ECT 325 – Analog Integrated Precision Ckts.	3		
ECT 343 – Industrial Electronics Pulse Ckts.	3		
ECT 444 – Programmable Logic Controllers & Control Systems	3		
ECT 448 – Ind. Electronic Current Control Systems	3		
MET 103 – Intro. to Tech. Graphics w/ CAD	3		
MET 329 – Fluid Power Technology	3		
Directed Elective (select 1 from the following)	3		
ECT 280 – Intro. to Automation			
ECT 281 – Robotic Controls			
MFG 370 – Fund. Of Machine Tool Processes			
MFG 371 – Mfg. Processes and Materials			
		24-36	**36**
Electives	8	**6-18**	**8**
Total Required Hours			**124-129**

6.3.6 Course Sequencing: There shall be evidence of appropriate sequencing of course work in each program of study to ensure that advanced level courses build upon concepts covered in beginning level course work.

As advanced-level courses build upon concepts covered in beginning-level course work, the curriculum structure is specific: all 100-level courses are intended for entry-level students; the 200-level courses are for students in the second year of their program; 300-level courses are for third-year students, and 400-level courses are for seniors. Course pre/co-requisites are clearly stated in the *Catalog.* Examples would be ECT 421 Circuit Analysis by Calculus; prerequisites: ECT 321, MATH 301. ECT 321 Circuit Analysis II; prerequisite: ECT 221 Circuit Analysis I. Students are also provided with the 4 Year Plan (below) that clearly lays out the program of study.

Electronics Technology Bachelor of Science Degree
Typical Four Year Plan

Fall Year 1		**Spring Year 1**	
ECT 130	2 Credit Hour	ECT 167	3 Credit Hours
ECT 165	3 Credit Hours	HS: R	3 Credit Hours
English 101**	3 Credit Hours	ENG 105**	3 Credit Hours
**OR ENG 107	(3 Credit Hours)	**OR ENG 107	(3 Credit Hours)
MET 103	3 Credit Hours	Math 115	3 Credit Hours
SBS: F,E	3 Credit Hours	SBS: E	3 Credit Hours
COMM 101	3 Credit Hours	†Foreign Language	3 Credit Hours
	17 Credit Hours		**15-18 Credit Hours**
Fall Year 2		**Spring Year 2**	
ECT 231	3 Credit Hours	ECT 324	3 Credit Hours
ECT 221	3 Credit Hours	ECT 232	3 Credit Hours
CS 256	3 Credit Hours	ECT 321	3 Credit Hours
		Phy. Sci. (Lab)	
MCS: USD	3 Credit Hours	SMS: F	4 Credit Hours
†Foreign Language	3 Credit Hours	MET 329	3 Credit Hours
		PE 101 & 101L	2 Credit Hours
	12-15 Credit Hours		**18 Credit Hours**
Fall Year 3		**Spring Year 3**	
ECT 325	3 Credit Hours	ECT 343	3 Credit Hours
ECT 281 or MFG 370 or MFG 371	3 Credit Hours	Math 301	3 Credit Hours
		TMGT 478	3 Credit Hours
TMGT 471	3 Credit Hours	Phy.Sci (Lab) SMS: E	4 Credit Hours
LAPS: LL	3 Credit Hours	ECT Elective	3 Credit Hours
MCS: IC	3 Credit Hours		

	15 Credit Hours		16 Credit Hours
Fall Year 4		**Spring Year 4**	
ECT 444	3 Credit Hours	ECT 448	3 Credit Hours
ECT 437	3 Credit Hours	ECT 421	3 Credit Hours
TMGT 492	3 Credit Hours	ECT 430	1 Credit Hour
ECT Elective	3 Credit Hours	ECT Elective	3 Credit Hours
ENG 305T	3 Credit Hours	LAPS: E	3 Credit Hours
		CAP	3 Credit Hours
	15 Credit Hours		**16 Credit Hours**

† See University Undergraduate Catalog requirements.

6.3.7 Application of Mathematics and Science: Appropriate applications of the principles of mathematics and science shall be evident in technical and management course work.

The very nature of the discipline necessitates that students comprehend and utilize theoretical concepts from mathematics and science. From the concepts of voltage, current, and resistance at the atomic level through complex circuit design, analysis, calculation of power consumption, or systems application, the appropriate understanding of mathematics and science are essential. There are two required math courses in ET foundational studies: MATH 115 is the entry level math course that teaches college algebra and trigonometry; MATH 301 fundamentals and application of calculus covers integral and differential calculus. These two courses provide the level and focus of mathematics content to meet ATMAE requirement, and offer students the foundation of math skills in solving technical problems. Additionally, the major requires ECT 221, Circuit Analysis I; ECT 321, Circuit Analysis II; and ECT 421 Circuit Analysis by Calculus. These three courses are pure math analysis application courses. Math is also an integral component of all required ET courses through the design and analysis of the components and applications of circuits.

6.3.8 Computer Applications: The program of study shall include instruction on computer application software, and the use of computers for information retrieval and problem solving.

Lab reports are required throughout the laboratory-based classes. These assignment requires the student to use word processing packages.

In addition to utilizing computers for the word processing of laboratory reports and other assignments, the use of software programs as ECAP, Breadboard or Electronics Workbench are integrated into courses throughout the curriculum. Other coursework requires understanding of specific software as Rockwell's RSLogix and RSLinx, as well as robotic specific software.

6.3.9 Communications: Oral presentations and technical report writing shall be evident in both technical and management course requirements.

Technical oral and written presentations and reports are critical components of ECT 130 and ECT 430. Many TMGT courses also require both oral and written presentations. Other required courses within those offered by the Department also entail oral reports; and technical writing. (Reference the representative laboratory reports, experimental design explanations, or project documentation in the Course-Work Section of the course specific files.) Additionally, ET Students' oral and written skills are developed in three Foundational Studies Courses (9 credits): Communications 101 and English 101-105/107 are basic English writing and speech classes where students practice writing and presenting general topics with clarity and style. English 305T is designed specifically for technical writing and presentation.

6.3.10 Industrial Experiences: Each program of study shall include appropriate industrial experiences such as industrial tours, work-study options / cooperative education, and/or senior seminars focusing on problem-solving activities related to industry. Industrial experiences shall be designed to provide an understanding of the industrial environment and what industry expects of students upon employment.

For supervised industrial experiences, ECT 351A - Z, Professional Cooperative Experience, is an elective course available for the students who may earn up to 6 Credits. For additional experiences, periodic tours are scheduled in conjunction with class activities. Also, plant and facility tours may be arranged by the various student/ professional organizations.

6.3.11 Competency Identification: Student competencies shall be identified for each program of study, including all options, which are relevant to current employment opportunities available to graduates.

Electronics is the foundational portion of most technology areas. Accordingly, the Department provides essential learning experiences relating to career preparation in electronics, computer-based quality control, micro-based process control, robotics, data communication, technical sales, service and maintenance, electrical power, telecommunications, or automated manufacturing. Competencies are identified for each course. These are introduced, emphasized, and re-emphasized as students progress through the curriculum. Representative criterion include each of the many tasks that might be necessary or related to the architecture, design, development, fabrication, and evaluation of electrical and electronic circuits, as well as laboratory documentation, dissemination, and acquisition of effective work skills that are necessary for successful employment. These experiences and objectives are developed based on several considerations including ATMAE requirements and mission statements of the Department, College and University. In the process we consulted intensively with our constituencies, with primary external source of input being the industrial advisory board and other external constituencies, such as alumni and employers.

Beginning in 2010, Eleven outcome competency areas and associated performance criteria have been identified and a review process developed to determine if these areas are being met. These areas are: (A) Mastery of Knowledge and Tools, (B) Apply Technical Knowledge, (C) Experiment And apply Results, (D) Be Creative In Design And Application, (E) Function Effectively In The Team Environment, (F) Effective Problem Solving, (G) Effective Communication, (H) Embrace Lifelong Learning, (I) Understand Professional And Ethical Responsibilities (J) Respect Diversity and Professional Responsibilities, (K) Embrace Quality.

INDIANA STATE UNIVERSITY

COLLEGE OF TECHNOLOGY

ACCREDITATION SELF-STUDY REPORT

March 2010

INDIANA STATE UNIVERSITY

COLLEGE OF TECHNOLOGY

ACCREDITATION SELF-STUDY REPORT

SECTION I

Requests for Re-Accreditation and Accreditation

SECTION II

General Information

SECTION III

Responses to ATMAE Standards From:

Advanced Manufacturing Management, BS
Automotive Technology Management, BS
Computer Engineering Technology, BS
Electronics Technology, BS
Packaging, BS
Safety Management, BS
Technology Management, BS
Health & Safety (Occupational Safety Management), MS

March 2010

TABLE OF CONTENTS

Appendices

Section III **Major Programs – Compliance with Standards**

Automotive Technology Management, BS

Computer Engineering Technology, BS

Electronics Technology, BS

Advanced Manufacturing Management, BS

Packaging, BS

Technology Management, BS

Safety Management, BS

Health & Safety (Occupational Safety Management), MS

The Association of Technology, Management, and Applied Engineering

ATMAE LEAD • INNOVATE • COLLABORATE

Formally NAIT

COPY

Request for Initial Accreditation or Reaccreditation Visit

Please Type Information

1. **Institution** Indiana State University
   Institution Address Terre Haute, IN 47809
2. **Head of Institution** Dr. Daniel Bradley Title President
   Telephone 812-237-4000 Fax 812-237-7948
3. **Head of Program** Dr. Bradford Sims Title Dean
   Telephone 812-237-3166 Fax 812-237-3733
4. **Contact Person** Dr. Jeffrey McNabb Title Assoc. Dean
   Mailing Address ISU College of Technology, Terre Haute, IN 47809
   Telephone 812-237-2987 Fax 812-237-2823
   Email Address jmcnabb@indstate.edu

5. **Type of Visit Requested:**
   [ ] Initial Accreditation [x] Reaccreditation [ ] 2-Year Follow-Up

6. **Program Level:** [x] Associate [x] Baccalaureate [ ] Master

7. **List Industrial Technology Program(s) (including options, concentrations, and specializations) to be considered** (Note: All options, specializations, and concentrations in a degree program MUST be reviewed. Reference standards 5.3.3 and 6.3.3).

Degree	Program Name	Option, Concentration, or Specialization
SEE ATTACHED SHEET		

(Attach additional sheet if necessary)

8. **Billing Address:**
   Dean, College of Technology, Indiana State University
   Terre Haute, IN 47809

9. **Regional Accrediting Agency:** North Central Association of Colleges & Secondary Schools

10. **Proposed Dates for Visit** (Note: a minimum of two full days are required for the visit plus a travel day).
    First Choice: March 28, 29, 30, 2010 Second Choice: April 4, 5, 6, 2010

11. **Recommended Team Member Lodging** (include name, address, and telephone number).
    Hilton Garden Inn, 750 Wabash Ave.
    Terre Haute, IN 47807 812-234-8900

12. **Authorized Signatures:**
    Head of Institution: J Brad Date: 7/20/09
    Head of Program: Jeff McNabb (Interim Dean) Date: 7/21/09
    Institution Contact Person: Jeff McNabb Date: 7/21/09

Mail this form to: Executive Director, The Association of Technology, Management, and Applied Engineering, 3300 Washtenaw Avenue, Suite 220, Ann Arbor, MI 48104-4200. Telephone 734-677-0720. Fax 734-677-0046. Email atmae@atmae.org

G:\UCIDATA\UCI\NAIT\Accreditation\Forms&Certificates\wordaccreditationrequest.doc

2009
Indiana State University
College of Technology
Programs Requesting Reaccreditation

Programs from the Electronics, Computer, and Mechanical Engineering Technology Department

- Automotive Technology Management, B.S.
- Electronics and Computer Technology, A.S.
- Electronics Technology, B.S.

Programs from the Technology Management Department

- Advanced Manufacturing Management, B.S. (previously Manufacturing Technology)
- Packaging, B.S.
- Technology Management, B.S. (previously Industrial Technology)

Indiana State University
More. From day one.

College of Technology,
Office of Associate Dean

Terre Haute, Indiana 47809
812-237-2987
888-478-7003
Fax 812-237-2823

COPY

November 24, 2009

Rick Coscarelli, Executive Director
The Association of Technology Management and Applied Engineering
3300 Washtenaw Ave., Suite 220
Ann Arbor, MI 48104-4200

Dear Dr. Coscarelli:

As we have discussed over the phone, Indiana State University would like to make some changes in our list of programs to be accredited by ATMAE in 2010. (Our original request is attached.) Below is our altered request.

Programs from the Electronics, Computer, and Mechanical Engineering Technology Department, College of Technology

- Automotive Technology Management, B.S.
- Electronics Technology, B.S.

Programs from the Technology Management Department, College of Technology

- Advanced Manufacturing Management, B.S. (previously Manufacturing Technology)
- Packaging, B.S.
- Technology Management, B.S. (previously Industrial Technology)

Programs from the Safety Management Department of the College of Nursing, Health, and Human Services

- Safety Management, B.S.
- Health and Safety (Occupational Safety Management), M.S.

Yours truly,

Jeffrey McNabb

Dr. Jeffrey McNabb, Associate Dean
College of Technology,
Indiana State University

Indiana State University
More. From day one.

COPY

College of Technology,
Office of Associate Dean

Terre Haute, Indiana 47809
812-237-2987
888-478-7003
Fax 812-237-2823

December 9, 2009

Rick Coscarelli, Executive Director
The Association of Technology Management and Applied Engineering
3300 Washtenaw Ave., Suite 220
Ann Arbor, MI 48104-4200

Dear Dr. Coscarelli:

Indiana State University would like to make some changes in our list of programs to be accredited by ATMAE in 2010.

We request that the six programs in the Electronics, Computer, and Mechanical Engineering Technology Department and in the Technology Management Department be evaluated using the traditional standard model.

Programs from the Electronics, Computer, and Mechanical Engineering Technology Department, College of Technology

- Automotive Technology Management, B.S.
- *Computer Engineering Technology, B.S.**
- Electronics Technology, B.S.

* We would like to include Computer Engineering Technology although it is also seeking TAC-ABET accreditation. Formerly known as Computer Hardware Technology, this program has had only minor revisions to its curriculum, and we therefore are asking for its reaccreditation rather than an initial accreditation.

Programs from the Technology Management Department, College of Technology

- Advanced Manufacturing Management, B.S. (previously Manufacturing Technology)
- Packaging, B.S.
- Technology Management, B.S. (previously Industrial Technology)

We would like the two programs below to be evaluated using the outcomes assessment model.

Programs from the Safety Management Department of the College of Nursing, Health, and Human Services

- Safety Management, B.S.
- Health and Safety (Occupational Safety Management), M.S.

If, due to these changes, it is deemed necessary to add another accrediting team member, we will understand and cover the additional cost.

Yours truly,

Jeffrey McNabb

Dr. Jeffrey McNabb, Associate Dean
College of Technology,
Indiana State University

JGM/re

Robert Eberwein

From: Jeffrey McNabb
Sent: Monday, December 21, 2009 9:00 AM
To: Rick Coscarelli at ATMAE/NAIT
Cc: Robert Eberwein
Subject: RE: ATMAE - 2010 Visit to Indiana State University

Thanks Rick,

Everything you have mentioned looks right. Jeff

From: Rick Coscarelli at ATMAE/NAIT [mailto:rcoscarelli@atmae.org]
Sent: Monday, December 14, 2009 3:08 PM
To: Jeffrey McNabb
Cc: ConnorSG@appstate.edu; mac13@indstate.edu
Subject: ATMAE - 2010 Visit to Indiana State University

Jeff and Malcolm,

Thanks for the update on your Programs/Options and that of the Safety Management Department.

I have made the necessary changes to our database to reflect the Master Program in Health and Safety as an Initial Accreditation and have revived the "Computer Hardware Technology" Program which will now be renamed "Computer Engineering Technology" and considered a reaccreditation.

Sid will be working on setting up the Team. It will have a fourth Team member to handle the Master program and the Safety Management Program. You institution will be billed for the additional member per our policy:
Accreditation Visits - Fee for Extra Team Members / Extra Days on Campus:
Fee: Based on a proportionate share of actual expenses.
Fee Calculation: If the Accreditation Personnel Committee determines that more than three team members are required for any visit, or that more than three (3) on-campus days are required for the visit, or if a follow-up on-site visit is required, then the institution will be billed for actual travel costs for the extra team member(s) or additional visit days, or for the follow-up visit. "Actual travel costs" for each extra team member will be determined by dividing the total travel costs by the number of team members. Actual travel costs for each additional visit day will be determined by dividing the total travel costs by the number of on-campus days required for the visit.
Billing: The fee for extra team members / extra days on campus will be billed immediately upon calculation of all direct expenses related to the visit.
Due: The invoice for the Extra Team members / Extra Days on Campus Fee is due and payable 30 days after receipt.
(See 2009 Accreditation Handbook 3.6.3)

Also Jeff, per your request, your Programs will be evaluated using the Traditional 2009 Standards and Malcolm's Programs, both B.S. and M.S. will be using the Outcomes Assessment Model.

Let me know if you see anything that needs changing or update.

Thanks.

Rick

Rick Coscarelli
Executive Director, ATMAE formally NAIT
3300 Washtenaw Ave., Suite 220
Ann Arbor, MI 48104
734-677-0720 voice
734-677-0046 fax
rcoscarelli@nait.org

Robert Eberwein

From: Rick Coscarelli at ATMAE/NAIT [rcoscarelli@atmae.org]
Sent: Monday, December 21, 2009 4:14 PM
To: Jeffrey McNabb; Robert Eberwein
Cc: ConnorSG@appstate.edu
Subject: ATMAE - Initial and Reaccreditation Visit - Indiana State University
Attachments: TEAMASSN Indiana State Univ.DOC; Institution Personnel ISUIT.pdf; Institution Personnel ISUSafety.pdf; Contact&TeamChairChecklist.doc

Importance: High

Jeff,

Indiana State University
Initial and Reaccreditation Visit - March 28-30, 2010

Attached is the "Notification of Team Assignments and Visitation Dates" form for you to sign and get back to me ASAP.

Also, please find out who the contact person should be for Safety. I would like to make sure my records are correct. I understand that you will be the point person for our Team and coordinate activities with the Safety Department, thanks.

You will not receive any hard copy of this notification.

Thanks.

Rick

Rick Coscarelli
Executive Director, ATMAE formally NAIT
3300 Washtenaw Ave., Suite 220
Ann Arbor, MI 48104
734-677-0720 voice
734-677-0046 fax
rcoscarelli@nait.org

The Association of Technology, Management, and Applied Engineering
Notification of Team Assignments and Visitation Dates

A. General Information:

				X	Master Level
X	Initial Accreditation		Associate Level		Consultant Visit
X	Reaccreditation	X	Baccalaureate Level		Visit (follow-up)

Contact Person:	**Dr. Jeff McNabb, Associate Dean IT**
Institution:	Indiana State University
Address 1:	ISU, College of Technology
Address 2:	
City, State, & Zip Code:	Terre Haute, IN 47809
Telephone Number:	812-237-2987
Email Address:	jmcnabb@indstate.edu

Jeff McNabb will coordinate with Safety

B. Tentative Team Assignments: (Traditional 2009 Standards for IT Dept. – Outcomes Assessment for Safety BS and Master)

Team Chair:	**Dr. Verna M. Fitzsimmons**	**Team Member 2:**	Mr. Todd Myers
Employer:	Kent State University	Employer:	Ohio University
Address 1:	Applied Business & Technology	Address 1:	Rm 124B, Stocker Center
Address 2:	P. O. Box 5190	Address 2:	
City, State, & Zip:	Kent, OH 44242	City, State, & Zip:	Athens, OH 45701-2979
Home Telephone:		Home Telephone:	
Business Telephone:	330-672-7064	Business Telephone:	(740) 593-1455
Email Address:	vfitzsim@kent.edu	Email Address:	myerst2@ohio.edu

Additional Cost if 4 or more Team Members see section 3.6.3 of Handbook

Team Member 3	Dr. Mandara Savage, CSIT	**Team Member 4:**	Dr. Jess Godbey
Employer:	Southern Illinois Univ-Carbondale	Employer:	Jacksonville State Univ.
Address 1:	Technology	Address 1:	134 Ayers Hall
Address 2:	Mailcode 6603	Address 2:	700 Pelham Road North
City, State, & Zip:	Carbondale, IL 62901-6603	City, State, & Zip:	Jacksonville, AL 36265
Home Telephone:		Home Telephone:	
Business Telephone:	618-536-3396	Business Telephone:	(256) 782-5080
Email Address:	msavage@engr.siu.edu	Email Address:	jgodbey@jsu.edu

C. The following dates have been selected for the on-site visit: **March 28-30, 2010**

D. A copy of your Self-Study Report must be sent to each team member by: **February 26, 2010**

If the above team member assignments and visitation dates are acceptable to your institution, please sign below, return the original to the Executive Director, and ***forward copies to your institution head and program head.***

Institution Contact Person Jeff McNabb **Date** 12-22-09

Mail this form to: Executive Director, The Association of Technology, Management, and Applied Engineering, 3300 Washtenaw Avenue, Suite 220, Ann Arbor, MI 48104-4200. Tel: 734-677-0720. Fax: 734-677-0046. Email:atmae@atmae.org.